

“We can help:” An Australian case study of post-
disaster online convergence and community resilience

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School of Medicine (Psychology)

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Melanie Irons

Date

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I am also very thankful for the support of my co-supervisors at various stages of the project, Libby Lester, Jenn Scott and Angela Martin.

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I cannot thank Damian McIver enough for his involvement, which I believe went above and beyond.

Thank you in advance to my examiners for assessing my work.

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ABSTRACT

Fundamental to contemporary approaches to disaster risk reduction is a focus on community resilience. Resilience is a process, and therefore one of the challenges of its study is the identification of its components. One approach was developed by Norris, Stevens, Pfefferbaum, Wyche and Pfefferbaum (2008), who identified four networked resources (objects, conditions, characteristics and energies that are of value) critical for resilience: *economic development, information and communication, social capital* and *community competence*.

Norris et al. (2008) also suggest that there are three adaptive capacities critical for post-event functioning, proposing that there will be improved resilience if resources are sufficiently *robust* (strong and with a low risk of deterioration), *redundant* (easily substitutable with other resources in the event of deterioration), and *rapid* (mobilised and used quickly) to buffer or counteract the effects of the stressor.

While Norris et al.'s work (2008) dealt primarily with 'mainstream' aspects of community and societal life, it is also important to explore how virtual relationships and connectedness, particularly via social media, influence how community resilience is developed and enacted after an emergency.

The importance of examining the link between social media and community resilience is framed in terms of the growing tendency for people to turn to social media during disasters and use it as a tool for sourcing assistance, sharing information, communicating with friends and family, and forming online emergent groups in order to assist with the response and recovery. Social media platforms increase the potential for people to interrelate throughout the response and recovery. As with any new technology, there has been reluctance in multiple sectors to

embrace the usage of social media during emergencies, and while both positive and negative anecdotal evidence is available, the research base and collection of empirical case studies in this area is small.

Using thematic and content analysis, the characteristics of an online emergent group that formed after a bushfire disaster in Australia in 2013 are examined. The group of spontaneous volunteers formed as a Facebook page, *Tassie Fires - We Can Help* (TFWCH). Using Norris et al.'s framework (2008), this thesis explores how social media facilitated the four resources in Norris et al.'s model, thereby potentially contributing to increased community resilience. This analysis of community perspectives and processes that emerged in a bushfire event is used to examine the utility of the Norris et al. model, specifically in the context of social media, as a framework for conceptualising community resilience.

Three sets of data were analysed. To form a basic understanding of the users and the usage of the page, a number of Facebook metrics sourced through social media analysts Locowise were examined, including user sex, location, age, and usage statistics such as page engagement.

Using qualitative data analysis software package NVivo, 2,443 of the page Administrator's posts over the first year of the page's life were also examined in order to explore the characteristics and functions of TFWCH. Six overarching themes, 173 key themes and 935 subordinate themes were established.

Three different questionnaires were administered to users of the page, targeting individuals who had assisted, organisations who had assisted, and bushfire-affected individuals who had sought assistance through the page (N= 678). The questionnaires included a number of qualitative and quantitative items, such as exploring which sources of media were most important to users of the page, and

which volunteering behaviours respondents completed. Qualitative items included in the questionnaires were analysed thematically.

Evidence is provided that a community-driven online emergent group can facilitate a number of the elements proposed by Norris et al. (2008) to generate resilience, including information exchange, communication, resource provision, social support, citizen participation, collaboration and collective efficacy. There is evidence that digitally driven emergent groups can provide these resources in a robust, rapid and redundant way, potentially more so than offline spontaneous volunteers or formal responders, thereby further contributing to resilience.

It emerged in this analysis that when analysed in the social media context, the model can be complemented by the inclusion of additional factors. It became clear that the leadership or Administration of an online emergent group is a key component of its success. Therefore it is proposed that skilful leadership, including meticulous information curation, is a resource that belongs centrally in Norris et al.'s model (2008). The data also pointed to a need to develop the resilience model to complement social support provision with psychological first aid, the provision of which became a key focus for the online emergent group.

The findings have implications for the field of emergency management. Due to its functionality as a communications platform, information exchange and method to engage with the community, it is recommended that social media is embraced and harnessed, and that virtual operations support teams should be formed for surge support in times of crisis. It is also recommended that online emergent groups should be legitimated and supported, as they have the potential to contribute significantly to community resilience.

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LIST OF CONFERENCES, PUBLICATIONS AND AWARDS RELATING TO RESEARCH PROJECT

2015	
September	Provisionally invited by BEHR (a private emergency and response management consulting firm) to be a speaker at a conference in Calgary, Canada
June	Invited to be a speaker for two sessions at the World Conference on Disaster Management in Toronto, Canada, as well as one of the three members of the Closing Panel on the final day of the conference
May	Invited by Air Baltic to be a speaker at their conference in Riga, Latvia
May	Invited by the Norwegian Red Cross to make a presentation for their team in Oslo, Norway
May	Invited by Brataas Kommunikasjon (a private crisis communications company that has been employed in a number of major disasters, such as the Asian Tsunami of 2004 and the Utøya terrorist attacks of 2011) to be a speaker at a forum in Oslo, Norway, and a second one in Lillehammer, Norway
March	Speaker for the Rotary Conference, Port Lincoln, South Australia
February	Paper accepted for publication (subject to minor revisions, all of which have been accepted) in the Research Forum Proceedings of the Bushfire and Natural Hazards Co-operative Research Centre (BNHCRC)/Australasian Fire and Emergency Service Authorities Council (AFAC) Conference 2014 (Wellington, New Zealand).
	Irons, M., Paton, D., Lester, L., Scott, J., & Martin, A. (2015). <i>Social media, crisis communication and community-led response and recovery: An Australian case study</i> . Proceedings of the Research Forum at the Bushfire and Natural Hazards CRC & AFAC Conference, Wellington, NZ, September 2014.
2014	
November	Speaker for FortisBC Energy (a major natural gas and electricity company in British Columbia) at a forum in Vancouver, Canada
November	Keynote and breakout session speaker for Alberta Emergency Management Agency at a summit in Edmonton, Canada
November	Webinar speaker for The City of Vancouver at a forum in Vancouver, Canada
November	Speaker at the Institute of Public Works Engineering Australasia/Tasmanian Association of Municipal Supervisors Works and Engineering Conference, Hobart, Tasmania

October	Oral paper presenter and symposium presenter at the Australian Psychological Society (APS) Annual Conference in Hobart, Tasmania
September	Oral paper presenter at the Australasian Fire and Emergency Service Authorities Council (AFAC)/Bushfire CRC Conference in Wellington, New Zealand As part of this conference a 3,000-word article has been submitted to be included in the Conference Proceedings. This is currently under review
September	Awarded a Recognition of Merit in the 2013 Disaster Resilient Australia Awards in Tasmania for the Not-For-Profit Category in Hobart, Tasmania
August	Speaker and panellist at the Australasian Women in Fire Fighting Association (WAFA) conference in Canberra, Australian Capital Territory
July	Speaker at the Australian Emergency Management Institute (AEMI) Social Media Forum in Mt Macedon, Victoria
June	Speaker at the Emergency Media and Public Affairs (EMPA) Conference in Canberra, Australian Capital Territory
June	Oral paper presenter at the World Conference on Disaster Management (WCDM) in Toronto, Canada
May	Speaker at the Critical Infrastructure Resilience Conference (Attorney General's Office) in Melbourne, Victoria
May	Speaker at the Bushfire Managers Study Tour for Tasmania Parks and Wildlife Service and the Tasmania Fire Service (TFS) in Hobart, Tasmania
April	Speaker at the Rotary Outback Conference in Longreach, Queensland
April	Speaker at the AGM for the Australian Institute of Emergency Services (AIES), Tasmanian Division in Hobart, Tasmania
February	Guest blogger for the World Conference on Disaster Management (WCDM) in Toronto, Canada
January	Guest blogger for Thinktank Social on the topic of social media metrics, Melbourne, Victoria
January	Chapter contributor to an anthology to be released in 2015, <i>Messages for new leaders – reaching across the divide</i>
2013	
December	Presenter at the University of Tasmania for AERG Work in Progress Day, as the lead author of this thesis was a recipient of a funding grant from the Arts Environment Research Group, University of Tasmania
December	Chapter contributor to the next edition of the book <i>Imagine if: A Handbook for Activists</i> (Wakefield Press), South Australia

November	Speaker at the Monash University Disaster Resilience Initiative (MUDRI) Forum in Melbourne, Victoria
November	Speaker for the Victorian Department of Justice at a forum in Melbourne, Victoria
November	Speaker at the Eidos Institute Congress in the policy development stream of <i>Social Media in Times of Crisis</i> on the Gold Coast, Queensland
October	Speaker for the Western Australian Police Force at a forum in Perth, Western Australia
October	Speaker at the Social Media Conference in Sydney, New South Wales (Sydney Water)
October	Completed a one-day tour of the Kinglake/Kilmore East Region as part of the AFAC/Bushfire CRC Conference in Melbourne, Victoria
October	Awarded the 2013 Disaster Resilient Australia Awards in Tasmania for the Not-For-Profit Category in Hobart, Tasmania
October	Case study contributor to the second edition of Dr Connie White's book, <i>Social Media, Crisis Communication, and Emergency Management: Leveraging Web 2.0 Technologies</i> (CRC Press)
September	Oral paper presenter and poster presenter at the Australasian Fire and Emergency Service Authorities Council (AFAC)/Bushfire CRC Conference in Melbourne, Victoria
July	Panellist at both Font PR Social Media Index Launches in Hobart and Launceston, Tasmania
July	The Australian Broadcasting Commission's (ABC) Australian Story documentary on <i>Tassie Fires - We Can Help</i> (TFWCH) Facebook page aired nationwide
May	Speaker at the Tasmanian Government's Working Group Meeting for the new <i>AlertTAS Emergency Website</i> in Hobart, Tasmania
March	Speaker at the Tasmanian Government's Department of Economic Development, Tourism and the Arts International Women's Day Lunchtime Session in Hobart, Tasmania
March	Panellist at the University of Tasmania's Panel Discussion: <i>2013 Tasmanian Fires: Media Roles, Responsibilities and Challenges</i> in Hobart, Tasmania
March	Speaker for the Centre for Civil Society on issues around a nationwide community emergency framework at a forum in Melbourne, Victoria
March	Speaker for Warrnambool City Council and regional emergency management personnel at a forum in Warrnambool, Victoria
February	Speaker at the Australian Psychological Society's (APS) Bushfire/Trauma Briefing in Hobart, Tasmania

1. Chapter 1 – Introduction to Social Media and Spontaneous Volunteering

Introduction

Disasters have impacted humankind throughout history, and their consequences are having increasingly greater effects on the population and the environment (Coppola, 2011). The Australian National Strategy for Disaster Resilience, released by Australia's Attorney General's Department, argues that the community's vulnerabilities are increasing, due to terrorism, conflict, climate change, and such societal shifts as demographic changes with an ageing population, the fragmentation of communities, transformations in social networks, and domestic migration (COAG, 2011). These factors are common to many parts of the world, exacerbating or increasing the likelihood of people being placed in a position where they will have to recover from a disaster (Pantti, Wahl-Jorgensen, & Cottle, 2012).

The increasing prevalence and risk of disasters has, in turn, placed a greater emphasis on the importance of developing and integrating community resilience within disaster risk reduction and response and recovery strategies. The process of integrating the community is encapsulated in the concept of *shared responsibility*, which has come to play a dominant role in Australian disaster risk reduction policy. The principle of shared responsibility is espoused within this policy in terms of the belief that "the community"¹ needs to play a more active role in disaster prevention, preparation, response and recovery, and increasingly, this concept is gaining traction as a goal of emergency management (DPAC, 2013; Dufty, 2012).

¹ It is important to acknowledge that while the collective term will be used throughout this thesis, "the community" is heterogeneous. Discussing "the community" as a single entity can obscure how the goal of shared responsibility can be realised. The insights into human interaction made visible via social media are useful in this way because they help to capture the diversity of the community. Definitions of community are explored in more detail in Chapter 2.

In a disaster, the community and those affiliated with emergency management agencies and departments come together as they respond to the events that have occurred. There is ongoing interaction between the community and emergency managers as the response unfolds, and then as the ongoing recovery takes place. In this context, negotiating the shared responsibility that needs to occur can be challenging, as there are conflicting approaches, goals, and opinions for all those involved that need to be reconciled.

At the same time as attention is being directed to how community roles can be developed, the concept of shared responsibility is challenging established command-and-control models of emergency management. The command-and-control approach typically concentrates power and resources in the hands of a few decision makers who then dictate the response to the disaster. While this model can work to some extent for physical recovery – such as rebuilding lost infrastructure – it has limitations as a model for social recovery during disasters (Alexander, 2002; Palen & Liu, 2007; Pandey & Okazaki, 2005; Waugh & Streib, 2006). The command-control model has come under criticism for excluding the community in the response process.

It has been argued that emergency management is more effective if the recovery phase starts simultaneously with the response phase (Eyre & Brady, 2013), and the command-control model of focusing on one phase (for example, response) over the other has inherent limitations. Palen et al. (2012) recommend that rather than having the response ‘done to them’; members of the public should be seen as active agents in an emergency, operating as information suppliers and “everyday analysts”.

This view challenges fundamental assumptions about how information should be controlled and disseminated to ensure public safety. That officials

can and should provide the best information during emergencies, and that the public can and should primarily rely on official information appears to be a difficult-to-resist, near-universal human hope. However, it is critical that we adopt a view of broad public participation in emergency response as soon as possible. (p. 2)

The points above explain why practitioners are being strongly encouraged to re-think their old practices which are heavily geared towards hierarchical, top-down chain-of-command models, and to think more about participatory and communicative styles of operating that engage and include stakeholders, rather than simply disseminating information or ‘dictating’ the response and recovery to the community (COAG, 2011).

While roles for the government will always remain, communities and individuals need to be more empowered and capable of preparing for and handling disasters themselves (COAG, 2011). Another challenge thrown up by this process is the need to consider how shared responsibility and engagement inform the sustained development of resilience. Resilience cannot be considered at only either the community level or the agency level; it must integrate the two.

“Community resilience” is a reflection of a community's unique and shared abilities and capacities to respond and adapt to the losses and large demands placed on it and its resources during times of crisis. It refers to the process linking a range of adaptive capacities in order for a community to be able to adapt to a disturbance, and to continue functioning. Resilience has been defined in multiple different ways (Alexander, 2013a),² and it is a process, and as such, a challenge in studying it derives from being able to identify its components. Acknowledging again the importance of shared responsibility, the conceptualisation of resilience needs to be multi-pronged, in that it encompasses the interdependent roles of both the

² Defining resilience is discussed in more detail in Chapter 2.

community and responding agencies. A useful approach has been developed by Norris, Stevens, Pfefferbaum, Wyche and Pfefferbaum (2008).

Norris et al. (2008) provide a framework (see Figure 2.2) for exploring the networked resources that are thought to underpin community resilience during disasters. Their model identifies four interrelated processes: *information and communication, economic development, social capital, and community competence*, and they propose that increasing these four resources can enhance community resilience.

A significant challenge in disaster risk reduction research is determining whether and how these four resources play out in the personal and social processes enacted in disaster response and recovery contexts, and not just in disaster *readiness*. In short, how do these components play out when the crisis actually occurs? It is not enough to simply develop these capacities. Evidence is needed of how they function ‘on the day’ and whether they facilitate disaster recovery. Only by demonstrating the latter can a community be assured that investing in these resources of resilience is a worthwhile and cost-effective exercise. Thus research is needed that explores how resilience may be enacted and enhanced post-disaster, while acknowledging the difficulties in collecting post-event data.

While communities respond to disasters in myriad ways, one notable phenomenon in recent times has been for people to turn to social media for sourcing assistance, sharing information, finding way to help, and communicating with friends and family (Hiltz & Plotnick, 2013). This is part of a broader trend in which virtual or online community relationships have become an increasingly common feature of contemporary life (For-mukwai, 2010). As Taylor, Wells, Howell and Raphael (2012) argue, social media is “revolutionising communication and

connections in all areas of life” (p. 20). Exploring how people communicate in real-time during a disaster by examining social media archives gives a way to explore how shared responsibility is taking place, and if it is having an impact on community resilience, as reflected in the model put forward by Norris et al. (2008).

The emergence of social media and its use during times of crisis has important implications for how resilience is examined and understood. For example, analysing social media archives post-disaster reveals insights into how people respond and react to disaster events, showing what key issues are of importance to the community as they try to respond to and recover from the extreme upheaval emergencies create.

If it is accepted that social media has changed the way people interact and communicate (Taylor et al., 2012), then it is important to consider how resources of resilience may be influenced by these changes. Given that it changes patterns of interaction and communication (for example, it facilitates many-to-many communication as opposed to one-to-many or many-to-one), it becomes important to inquire whether the use and application of social media has any implications for how resilience is conceptualised, and how it might be used and supported through relationships that include virtual, electronic components.

Although the possibility for social media to enhance community resilience has received relatively little attention in the research literature to date, it is argued that it could facilitate how a community responds to a disaster. For example, one of the main networked resources proposed by Norris et al. (2008) that has an effect on community resilience is *information and communication*. It is known that in complex, large-scale disaster events, demands, needs and the hazard situation itself changes rapidly (Yin, Lampert, Cameron, Robinson & Power, 2012), which can

make it impossible for official responders and mass media to be able to keep up with the increasingly diverse information needs of the affected community (Palen et al., 2012). In this context, it is possible to anticipate how social media can potentially help in this complex environment. Social media may help with the communication of information in the rapidly changing environment of an emergency, thereby potentially enhancing community resilience, as operationalised by Norris et al.'s model. This will be explored in detail in Chapter 2.

Therefore, considering that the number of hazard events is increasing, and the inevitable push towards shared responsibility within risk management models, it is important to explore how community resilience can be developed and enhanced during and after disaster events. There is scant research on how social media,³ and the people who congregate online to use social media during times of crisis, may assist with improving how a community responds and recovers from a disaster.

An introduction to Facebook

This thesis will examine how a community used a Facebook⁴ page during a disaster. Before looking at how social media has been used during disaster situations it is worth introducing some key points about Facebook.

³ While some research mentioned in this thesis focuses on Twitter, this thesis will mainly focus on Facebook. Most of the scholarship around social media and disaster management has concentrated on Twitter (De Longueville, Smith & Luraschi, 2009; Hughes & Palen, 2009; Smith, Halstead, Esposito & Schlegelmilch, 2013; Starbird, Palen, Hughes & Vieweg, 2010; Vieweg, Hughes, Starbird & Palen, 2010; Yin et al., 2012). Compared to Twitter, Facebook as a platform is understudied. This is a curious phenomenon, as usage of Twitter in general settings (not just in the emergency management setting) worldwide is significantly lower than the usage of Facebook. Furthermore, the usage of Twitter during disasters is also quite small (Bruns, Crawford & Shaw, 2012). The reason for the proliferation of Twitter-based research however is quite straightforward – all tweets are public, and are posted on Twitter's public timeline. Using third party software applications, anyone (researchers and non-researchers alike) is able to access, search and retrieve this data, including tracking individual users and specific hashtags and search terms, through the Twitter Search API. This means of course that Twitter is an excellent source of information during an event as it happens for those who choose to use it, which goes some way in explaining its popularity for researchers (Starbird & Palen, 2011; Sutton, Palen & Shklovski, 2008). This thesis hopes to contribute to research gaps by focusing on the use of Facebook during emergencies.

⁴ A summary of some of the key terms and functions of Facebook is included in Table 1 in the Appendix, so that the basic social media terminology used throughout this thesis can be understood.

Facebook is a vastly popular social network site estimated to have more than one billion users around the world. Founded in 2004, Facebook was initially intended for internal use only at Harvard University in the United States (Cassidy, 2006), however the following year it was also made available to high school networks. In early 2006 it was opened to corporate networks, and then to the general public in late 2006 (Boyd & Ellison, 2007). Facebook now operates in over 100 languages, and enables registered users to create a personal profile in order to have an online presence, stay in touch with friends and family, follow pages they are interested in, share photos and videos, and to socialise in a virtual environment (Font PR, 2013; Sensis & AIMIA, 2013). Registration is free as Facebook creates revenue through advertising. It is highly accessible on mobile technology.

Primary goals of social networking sites such as Facebook are to help people communicate, and to drive digital conversations. People do not usually use Facebook for the goal of meeting new people or networking, but primarily to connect and communicate with people they already know; people who are already a part of their social network (Lampe, Ellison & Steinfield, 2006; Boyd & Ellison, 2007). However, in addition to supporting and maintaining existing social ties, social networking sites can assist in the formation of brand new connections with other people (Ellison, Steinfield & Lampe, 2007), which, as will be discussed shortly, has relevance in the disaster context.

Facebook: General scholarship

The study of Facebook represents an emerging field of study, although researchers were already studying it in 2006 when it was new, and still called “The

Facebook” (Acquisti & Gross, 2006). The research base on social media is young, but growing.

According to a review by Boyd and Ellison (2007), the majority of general scholarship looking at Facebook has focused on one of four things: privacy issues (Acquisti & Gross, 2006; Debatin, Lovejoy, Horn & Hughes, 2009; Dwyer, Hiltz, & Passerini, 2007; Lewis, Kaufman & Christakis, 2008), online versus offline connections (Ellison et al., 2007; Grasmuck, Martin & Zhao, 2009), impression management and friendship performance (Boyd, 2004), and networks and network structure (Lampe et al., 2006). It is acknowledged that this is now a relatively ‘old’ review, as it was conducted very early in the life of Facebook. It is still useful and relatively current, although a more recent review would be useful if were to be conducted.

The vast majority of research conducted on Facebook has utilised survey data, and has involved samples of university or college students. Other research has explored topics like how people with disabilities use social media (Shpigelman & Gill, 2014), its links with social capital (Joinson, 2008), and how people of different races project themselves on social networking sites (Grasmuck et al., 2009).

Facebook usage

Facebook is not being used anymore just for its original purpose of being a medium for people to stay connected with people they already know in the offline world. It is now being used for a whole suite of other objectives and tasks. For example, within marketing, it is a way for corporate groups to build brand awareness, gain trust and credibility, and to connect to a target audience (Smith et al., 2013). The Government of the United States of America (USA) is using a variety

of Web 2.0 technologies to improve service delivery and enhance various individual missions: 22 of 24 major federal agencies have a presence on Facebook, Twitter or YouTube as at July 2010 (Wilshusen, 2010). Barack Obama's 2008 presidential win was arguably the first example of social media being used effectively for a political election (Carr, 2008).

Facebook has also been used for causes, such as *Take It Global*, a youth site for action on global issues, and by organisations like Amnesty International for promoting activism and communicating with the public. It was deemed to be vital in the Arab Spring Egypt uprising (Eltantawy & Wiest, 2011; Khamis & Vaughn, 2011; Merchant, Elmer, & Lurie, 2011), as a mode of cyberactivism. The use of social media is also being explored in health care and medicine, and its benefits and potential uses in the domain of public health are being considered (Merchant et al., 2011).

Social media in times of crisis

Further to those uses, an increasing number of people are now turning to social networking sites during emergencies as a source of information and as a way to communicate (Hughes, Palen, Sutton, Liu, & Vieweg, 2008; Lindsay, 2011; Sutton et al., 2008; Yates & Paquette, 2011), and they are starting to expect formal response agencies to do the same (St. Denis, Hughes & Palen, 2012).

Some research has examined the use of social media in emergencies, but there are significant gaps in the literature. Because the use of social media is an emerging phenomenon, all the work has been written post-2007 (Alexander, 2013b). The research base on the use of social media in disasters is therefore still limited but is growing at a rapid rate (Alexander, 2013b).

It is argued that social media was first recognised widely as a useful tool during emergencies after the 2010 Haitian earthquake (USA Department of State, 2010). For the first time in a disaster, during this catastrophe, the USA Government and other key responders used social media, wikis⁵, and collaborative workspaces as the main information and knowledge sharing mechanisms (Yates & Paquette, 2011). It has been argued that the use of social media during this disaster represented a paradigm shift in how it can be used during emergencies (McClendon & Robinson, 2013).

Social media has been a feature of many other recent disasters, such as the Christchurch earthquakes (Yin et al., 2012), and Typhoon Morakot in Taiwan (Huang, Chan & Hyder, 2010). Social media in the form of the photo sharing website Flickr was used during the London Bombings of 2005 (Peary, Shaw & Takeuchi, 2012).⁶ Social media was also used during the Mumbai terror attacks of 2008, where people used Twitter to share and exchange information, ask for help, try to find loved ones, and to photographically and video-graphically document the events (Goolsby, 2010).

Thus social networking sites offer a relatively new capability for communication during a disaster, as a ‘backchannel’ of communications, allowing for the collection, transfer, and dissemination of information and wide-scale interaction that is otherwise very difficult to obtain or manage (Sutton et al., 2008). Members of the public, facilitated by ubiquitous technologies such as smart phones with inbuilt photographic capabilities, can now create useful and relevant ‘user generated content’. Collaborative sites on the Internet such as Facebook are allowing the publishing and sharing of this content in an unprecedented way. This has opened

⁵ A wiki is a website or online database that enables a community of users to add and edit content.

⁶ See: <http://archive.wired.com/science/discoveries/news/2005/07/68143>

up opportunities for people to be more informed about events as they unfold, and for responders to have greater situational awareness, and to communicate more effectively with the community during emergencies (Jaeger, Shneiderman, Fleischmann, Preece, Qu & Fei Wu, 2007).

As Yates and Paquette (2011) point out, decision-making in a disaster response situation has to occur in what is initially a highly compressed timeline, where information is often limited or conflicting. Decisions have to be made fast and actions taken quickly in order to minimise damage, save lives or stabilise dangerous situations. Therefore emergency personnel need to be flexible in the way they manage information given the speed at which emergencies develop.

Highly evolved knowledge management systems are therefore needed. Social media tools may be useful, and in some documented cases, which will be discussed shortly, have already demonstrated their worth. Theoretically, via social media, information can be exchanged instantly on a readily accessible public platform, conversations can happen in near real-time, information can be gathered at speed that helps inform the common operating picture of what is happening, and many people can be communicated with almost instantaneously.

However the use of social media in times of crisis does not come without challenges. As Palen and Liu (2007) argue, formal response agencies are struggling to adapt and keep up with the changes in technology. They also struggle to respond to pressures from community members, such as the pressure to utilise all the information made available online (Palen & Liu, 2007). Public officials are often afraid of backchannel communication over social media, believing there is a risk of spreading rumours and misinformation, thereby putting public health and safety in jeopardy (Goolsby, 2010; Hiltz & Plotnick, 2013; Palen, Hiltz & Liu, 2007).

Regardless, the traditional top-down formula, which is a centralised process for sharing information with the public, is being challenged, as more decentralised processes are becoming popular, led by platforms such as Facebook and Twitter (Smith et al., 2013).

A small number of researchers within emergency management have suggested that the use of social media can increase community resilience post-disaster (Taylor et al., 2012; Dufty, 2012).

Based on the goals of resilience building, such as those set out in the National Strategy for Disaster Resilience (COAG, 2011), Dufty (2012) argues that social media can contribute to community resilience by developing social capital, providing useful intelligence via crowdsourcing, communicating warnings and information, providing support, coordinating community response and recovery, and conducting post-event analysis in order to build even stronger resilience. Taylor et al. (2012) conducted one of the first studies that used a case study approach to examine the impact of the use of social media and online emergent groups on resilience during times of crisis. Through an analysis of online survey data and interviews, the authors argued that there was strong evidence that the use of social media in a disaster helped to contribute to community resilience.

Belblidia (2010) conducted expert interviews to explore whether community resilience could potentially be enhanced with the facilitation of social networking sites. Even though this research was conducted in 2010, prior to the growth of social media usage in times of crisis, the results of the interviews identified that respondents felt that social networking sites offered substantial potential for increasing community resilience, due to helping people receive information, to communicate, and to have a forum to collaborate. Belblidia argues that social media,

if used well, can help reduce the vulnerabilities of a community and increase its resilience after an emergency has happened by facilitating and supporting civic engagement. She argues that when social media enhances the flow of information, it can reach diverse members of the community, educate people, and help to mobilise them for collective action.

The extent to which social media and online emergent groups can support the capacities needed to help the community to be more resilient is an area that has not been addressed satisfactorily in the literature so far, and much more research is needed. Of particular interest is exploring how the four resources put forward by Norris et al. (2008) (information and communication, community competence, social capital and economic development) may be enhanced by the usage of social media during and after emergency events.

Spontaneous volunteers

A way that people are utilising social media platforms that has been alluded to is in order to find ways to help their friends, family, and community once a disaster has struck. Volunteers contribute to the response and recovery in important ways. For example, after major flooding in Queensland, Australia, in 2010 – 2011, as many as 60,000 people volunteered to help with the clean-up (Rafter, 2013). It is clear that volunteering has an important role to play as a component of resilience and psychological recovery after an emergency event (Steffen & Fothergill, 2009) but it is a difficult concept to explore in pre-event analyses, and little research has looked at spontaneous volunteers and emergent groups in detail. Considering that volunteering may have an impact on resilience, and considering social media, with

its ability to inform the public and connect people, could facilitate volunteering, this is an important area to explore.

Convergence after a disaster refers to the informal and spontaneous movement of people, goods, messages, and services to an area that has been impacted by disaster (Fritz & Mathewson, 1957). Fritz and Mathewson discuss three types of convergence on a disaster zone: *personal* (the influx of people into an area), *informational* (influx of information into the disaster community) and *material* (the influx of material goods and donations into an area). Convergence is not a new phenomenon; personal, informational and material convergence has been documented as early as the first decade of the 20th century. Convergence can be beneficial, but it can also cause significant issues, as will be discussed shortly (Fernandez et al., 2006).

According to the Ministry of Civil Defence and Emergency Management in New Zealand (CDEM, 2006), a convergent or *spontaneous volunteer* is unaffiliated with and not accountable or responsible to any organised group, is untrained in emergency skills, and is potentially a previous traditional volunteer, but is no longer involved.⁷ It has been documented repeatedly that after a disaster, these untrained volunteers will emerge and converge with the desire to help whether they are wanted or not (CDEM, 2006; Fernandez, Barbera & Van Drop, 2006; Quarantelli, 1988).

⁷ Spontaneous volunteer is a term synonymous with emergent volunteer or convergent volunteer. Defining volunteers is challenging, and especially spontaneous volunteers – there are multiple definitions and many of them conflict. The Australian Government and the Australian Red Cross have a different and more specific definition (AGD & Australian Red Cross, 2010). They differentiate between people who contact an agency and want to volunteer and therefore register to volunteer and people who go through inductions and checks in order to actually volunteer. They define the first type as ‘potential spontaneous volunteer’ and the second type as ‘casual volunteers’. The ‘casual volunteer’ is not officially affiliated with an organisation. They acknowledge that other agencies and organisations do have different definitions. They also acknowledge that in the literature it sometimes explores and makes the distinction between ‘professional’ volunteers, ‘spontaneous within affected areas’ volunteers, and ‘spontaneous out of area’ volunteers. For the purposes of this study, a traditional volunteer is one who is trained and affiliated with an organisation prior to the disaster occurring. A spontaneous volunteer is one who emerges in response to the event, but is neither affiliated nor trained. An emergent group is a collection of spontaneous volunteers who come together and collaborate in some way. Spontaneous volunteers who emerge and then become inducted to work on behalf of an organisation (‘casual volunteers’) are not explored in this thesis.

Spontaneous volunteerism is a growing phenomenon (AGD & Australian Red Cross, 2010), and while there are some good quality studies examining them (Kendra & Wachtendorf, 2001; St. John & Fuchs, 2002), there is surprisingly little research on the characteristics and behaviours of these volunteers. Much of the published work on spontaneous volunteers only comes in the form of volunteer management manuals for agencies and government groups (Barraket, Keast, Newton, Walters & James, 2013), and is non-empirical or lacking in detail. This is a problem that has practical implications, as expressed by Fritz and Mathewson (1957):

Formal relief and control agencies normally keep some form of record of the extent and type of assistance, which they render to a disaster-struck population. The great bulk of the information, volunteer assistance, on the other hand, usually goes unrecorded, unnoticed, or unevaluated. The result is that formal relief and control agencies frequently over-estimate the proportional extent of their own efforts in relieving the suffering of disaster victims, and grossly underestimate the extent of informal assistance. (p. 41)

Spontaneous volunteers can contribute to the response and recovery in important ways. Tierney (2002) mirrors this sentiment as she discusses the aftermath of September 11.

In drawing lessons from the New York disaster, it is important to note that while the response activities undertaken by official emergency agencies were crucial, those activities constituted only part of the picture. Equally significant was the manner in which those agencies interacted with and obtained support from non-crisis organizations and from residents of the impact area (n.p.)

Usually first responders to an emergency are not trained professionals, but local citizens. They often provide first aid, assist people to hospital and perform rescues before professionals arrive (Palen et al., 2007). These individuals are geographically available and emotionally motivated to assist (Steffen & Fothergill, 2009). Spontaneous volunteers can often offer useful insights into what a community needs, and they can be a useful resource, filling gaps and even providing their skills

in a way that means economic savings have been made (Cocking, 2013; Fernandez et al., 2006). The community can improvise, and be a powerful and flexible force in the response and recovery phase of a disaster. They can and do lead vital rescue and relief efforts during emergencies (Kendra & Wachtendorf, 2001; Palen & Liu, 2007; Tierney, 2002). Furthermore, local residents responding can assist with the identification of an emergency, help others to avoid it, and improve the recovery (Jaeger et al., 2007). The public is a resource that is largely untapped in disasters (White & Plotnick, 2010).

However, spontaneous volunteers can also be a negative force during a crisis. This is visible when looking at the terms used by responders to describe the help from spontaneous volunteers after the World Trade Centre attacks on September 11, 2001, as expressed by Kendra and Wachtendorf (2001).

Some emergent jargon developed that reflected the challenges of uncontrolled donations and that also reflected a burgeoning oppositional relationship between emergency managers and donors. For example, the terms “rebel food” and “renegade supplies” were used to refer to food and other items that were brought into the impact area on an ad hoc, uncontrolled basis, sometimes by people who were known to the recipient, but often not.
(p. 13)

Spontaneous volunteers can arrive en masse in a disaster zone, preventing crucial services from having clear access to an affected area, and causing issues with safety, control, management and resourcing (Fernandez et al., 2006). Convergence can cause traffic disruptions, impede the actions of official responders, and managing these volunteers can use critical resources that are needed elsewhere (Fritz & Mathewson, 1957). Over-qualified people can operate outside of the roles they have been given in a disaster, and it can be challenging to verify volunteers’ skills, licences and qualifications, placing an overwhelming administrative burden on organisations (AGD & Australian Red Cross, 2010).

Matching volunteers to tasks can be challenging. A volunteer's desire to help is often not matched by the skills he or she have to contribute to the response, nor matched with the skills desired by formal response agencies (Fernandez et al., 2006; Kendra & Wachtendorf, 2001; Steffen & Fothergill, 2009).

Volunteers can also contribute excessive donations to a disaster zone. While specific records of excessive donations are not made, usually these supplies arrive far in excess of what is needed, contain unneeded or unusable items, require a large human resource to sort and organise, and can cause conflict (St. John & Fuchs, 2002; Tierney, 2002).

The arrival of spontaneous volunteers can prove logistically challenging for emergency managers (Barraket et al., 2013). In a similar way to those volunteers who converge on a scene and ask for direction, other volunteers have a tendency to ring multiple agencies or public information hotlines in order to seek guidance on how they might be able to help, to source information on the event, or often, simply to seek reassurance, which drags these staff away from key service delivery (Volunteering Queensland, 2011).⁸ Thus spontaneous volunteers may both contribute to and negatively impact on the response and recovery of a community.

Regardless of these problems, spontaneous volunteers will emerge, as expressed by Wachtendorf and Kendra (2004, p. 5): "We all remember the saying from the Kevin Costner baseball movie, *Field of Dreams*, 'If you build it, they will come'. Well, if you have a complex disaster run right through it, they will come as well." For this reason it becomes important to consider how some of the ongoing issues with spontaneous volunteers – the fact they can be a drain on resources,

⁸ It is for this reason that Volunteering Queensland has created "CREW" – Community Response to Extreme Weather. It was set up after storms in 2008, and it is a one-point of contact for people who want to help, and for emergency personnel looking for volunteers. They have received 84,000 registrations since their inception. CREW is intended to act as a 'shock absorber' and a facilitator for volunteers.

difficult to control or collaborate with, and overzealousness with donations – may be better managed in future disasters.

Examining *why* spontaneous volunteers emerge is important if they are to be better understood and managed. The media portrays what is happening in a disaster area, which raises awareness, and motivates people to act (Cottrell, 2012). It is important to note that these spontaneous volunteers are often ‘gap-driven’, as expressed by Fritz and Mathewson (1957):

The particular forms of aid rendered informally on a voluntary basis may vary wide, of course... A large share of the volunteer aid in peacetime disasters can be attributed to the fact that organized disaster forces have not arrived in sufficient strength and with sufficient equipment and supplies to render the needed assistance during the early stages of disaster. (p. 41)

Often spontaneous volunteering grows and flourishes in the vacuum left by official responders who may be too slow to respond, and who are faced with logistical or administrative barriers (Gardner, 2013). If there are *fewer* gaps in the official response, spontaneous volunteers are less likely to participate, as explored by St. John and Fuchs (2002, p. 404) after the Oklahoma bombing: “No doubt owing to the speed with which professionals took over the search and rescue, only 3 per cent of the respondents reported participating in the search and rescue.”

Spontaneous volunteers step forward for a number of reasons⁹ that range from being focused purely on the wellbeing of survivors, to wanting to alleviate some personal feelings of helplessness or grief (Quarantelli, 1988; Voorhees, 2007). Fritz and Mathewson (1957) argue that there are five types of spontaneous volunteers that can be distinguished from each other based on their motivations for

⁹ Clary, Snyder, Ridge, Copeland, Stukas, Haugen, and Miene (1998) examine volunteering from a functionalist approach, and point out that although the acts of volunteering may seem similar on the surface, these acts actually represent different underlying motivational processes between the people who do them. Exploring the motivations of all volunteers in detail, as well as comparing those of spontaneous volunteers as opposed to traditional volunteers or casual volunteers (spontaneous volunteers who become affiliated with an organisation during the disaster) is a worthy topic (Clary et al., 1998) and could better inform how to manage volunteers effectively, but an in depth discussion is beyond the scope of this thesis.

helping. Volunteers are the *returnees* (survivors of the crisis), the *anxious* (people keen to feel empowered through action), the *helpers* (people who are motivated by altruistic reasons), the *curious* (also known as disaster tourists), and the *exploiters* (people who are opportunistic, looking to gain recognition or to exploit power and take advantage of others during the disaster).

Researchers studying volunteers after the 2001 World Trade Centre attacks suggested that there were additional categories that could be added to these: the *supporters* (people who provide encouragement to the emergency services) and the *mourners* (people psychologically distressed by the event who congregate at the disaster zone) (Kendra & Wachtendorf, 2003).¹⁰

Of interest to this thesis is whether people may spontaneously volunteer, and in particular, congregate online over social media, for psychosocial reasons. That is, as it is known that social media is already used as a tool for connecting and communicating with friends and family (Lampe, Ellison & Steinfield, 2006; Boyd & Ellison, 2007), do people use social media in order to receive social support and feel better about the emergency event? This is an idea that has been put forward by Bruns et al. (2012), who commented that social media has been used to connect with others and to seek out or offer social support during a disaster.

It is known that those who have been directly impacted during a disaster potentially do need psychological assistance. However it is also recognised that those with a strong desire to help also often need some form of emotional support. Research by Steffen and Fothergill (2009) found that volunteering behaviour after the September 11 attacks in New York City was both self-oriented and other-oriented: “They wanted to help others relieve their pain and suffering, and wanted to

¹⁰ It is unknown if these categories are applicable in the social media context, but it can be assumed they are until research to the contrary is forthcoming.

help themselves by taking positive action for change” (p. 30). Similarly, after devastating floods in Queensland in 2010–2011, Volunteering Queensland made a submission to the Queensland Floods Commission of Inquiry (2011). Its statistics suggested that 30% of the people who called during the floods were not seeking to contribute as volunteers, but rather, they were seeking emotional support. They noted that, “many of these people... simply want to have someone to talk to” (p.6).

Thus it seems there is a need for providing psychological support not just to those who have been directly affected, but those who may have been indirectly affected, and who often attempt to feel better by coming forward to assist. The possibility that people come to social media in order to seek and provide psychological first aid is explored in more detail in Chapter 3.

Spontaneous volunteers also have the tendency to form *emergent groups* as they congregate together and collaborate in order to target specific needs post-disaster. This is of interest to this thesis because social media can assist with the formation of people working together, and there may be potential for these groups to positively impact community resilience.

Offline emergent groups

Dynes (1970) identified four different types of groups that operate during disaster response efforts: *established* (organisations that already exist and carry out regular tasks during an emergency, such as police departments), *extending* (organisations that do not normally have roles during disasters but extend their regular activities during a disaster, such as a construction company helping with the clean-up), *expanding* (organisations that carry out regular tasks but expand their structure or team during a disaster, such as the Salvation Army, using more

volunteers once a disaster strikes), and *emerging* (organisations that did not exist at all prior to the disaster). *Emerging* or *emergent* groups are of interest in this thesis.

Stallings and Quarantelli (1985) define *emergent groups* as “private citizens who work together in pursuit of collective goals relevant to actual or potential disasters but whose organization has not yet become institutionalized” (p. 94).

Emergent groups develop spontaneously from complex situations, which are marked by environmental and social instability (Gardner, 2013), and they have the information, relationships, and physical or mental stamina in order to be able to help (Majchrzak, Jarvenpaa & Hollingshead, 2007). These groups comprise of people who may come from all different sectors – the private sector, the public sector, and relief organisations – who come together to address selective needs that are perceived during the disaster (Green & Ireland, 1982).

These groups generally focus on perceived needs until they have been fully resourced, and then many of these groups dissipate (Stallings & Quarantelli, 1985). As is commented on in the manual written by the Australian Government and the Australian Red Cross (2010, p. 9): “In the absence of a message, or if conflicting messages are given, people are more likely to feel there is a need for their help”. Thus it is important to factor in how the community *perceives* the situation, rather than the reality of what may or may not be needed.

As with spontaneous volunteers, there are a number of important issues with how emergent groups operate, and how they integrate with the formal emergency response (Stallings & Quarantelli, 1985). As mentioned already, emergency managers grapple with the pros and cons and long-standing challenges of handling spontaneous volunteers and emergent groups are no different, and most have policies and guidelines on how these volunteers will be handled. For example, it can be

challenging avoiding duplication with activities being undertaken by both formal responders and emergent groups. In addition, the presence of emergent groups can imply to emergency services that they are not doing their job properly (Stallings & Quarantelli), as Kendra and Wachtendorf (2001) have noted:

While emergent groups are factors at all stages of the disaster cycle – preparation, response, recovery – public officials often find their presence especially onerous during the response phases, since the appearance of these groups suggests the inadequacy of official response efforts. (p. 8)

Stallings and Quarantelli (1985) argue that emergent groups are almost the antithesis of organisations, in that they do not have written rules or charts, almost all members are volunteers, there are no job specifications or formal training, written records are rarely kept, and policies and tasks are the result of ad hoc decision making. Emergent groups have unclear boundaries that change, membership that is fleeting, the leadership is unclear, fluid and dispersed, they focus on tasks that are unstable and constantly change, and due to being geographically dispersed, communication can be almost impossible (Drabek, 1986; Drabek & McEntire, 2003; Majchzrak et al., 2007).

These factors have meant that not only can these groups be very challenging for formal responders to communicate with or monitor during disasters, but also, it is difficult for researchers to examine these emergent groups both during and after disaster events (Quarantelli & Dynes, 1977). This has meant that much of the research on these groups has been simplistic and descriptive, and has shed little light on the more intricate information about these groups, such as how they form, who leads them, and how they function. As Drabek (1986) has noted, “We still lack much insight into the internal dynamics of these emergent organisations” (p. 161).

Regardless, there has been a long history of work that references emergent groups (Drabek, 1986; Drabek & McEntire, 2003; Kendra & Wachtendorf, 2001;

Lowe & Fothergill, 2003; Stallings & Quarantelli, 1985; Tierney, 2002). However, more detailed case study research is needed that closely examines factors such as how and why these groups form, how they function, how their leadership is enacted, and if they can have a positive impact on community resilience. Furthermore, there is scant literature on a new typology of emergent group: the one that forms online, often using social networking platforms as tools, and then enacts change both online and offline.

Online emergent groups

The number of people who can converge has grown substantially with the advent of the Internet (Kavanaugh, Reese, Carroll & Rosson, 2005), so that now it is almost limitless (Hughes et al.).¹¹ In the Internet age, after a disaster, both local people and those in remote locations can come together in a similar way to real-world spontaneous volunteers, but in an *online* space (Hughes & Palen, 2009; Hughes et al., 2008; Starbird & Palen, 2011). Quickly formulated ad-hoc crisis communities can form to address complex issues, and are created when various users converge in the social media space to respond to sudden emergencies (Goolsby, 2010). There is promise for how groups that form online, using social media, may contribute, as expressed by Rafter (2013),

Will there be future opportunities for social media to be used to mobilise volunteers? Most certainly...The benefits of social media are obvious: it is free and available 24/7; it offers instant access to information; it uses collaboration or 'crowd sourcing' to ensure the information is up-to-date (taking into account the inaccuracy of some information) and it is regarded as a legitimate source of information. It can be accessed without power (most of Queensland didn't have power for a significant period of time during the

¹¹ This is in fascinating contrast to geographical limitations experienced by volunteers even as recently as 2002. In their study on volunteers after the Oklahoma Bombing of 1996, St. John and Fuchs (2002) noted that: "Some of the respondents didn't live in Oklahoma City at the time of the bombing or for many of the 10 months between the bombing and the survey, and thus had limited opportunities to volunteer in support of the relief effort" (p. 403). Thus these respondents were actually excluded from the analysis. It can be seen that social media and the networked community enable volunteering now in ways that simply were not available in the pre-social media age.

floods) and it can build community support for people willing to receive and respond to messages. (p. 192)

Geographical boundaries and proximity to a disaster are now almost irrelevant: online access means people can and do get involved remotely through online convergence (Palen, 2008; Palen & Liu, 2007). Online emergent volunteer groups can be perceived as online communities,¹² but also, like offline emergent groups, as impromptu, informal organisations, as per the typology put forward by Dynes (1970) of organisations that operate in a disaster.

Online emergent groups represent a new typology of volunteer that is of particular interest because they are becoming more common, and yet are still largely unstudied. As expressed by Palen et al. (2012, p. 1): “By viewing the citizenry as a powerful, self-organizing, and collectively intelligent force, [information and communication technology] has the potential to play a remarkable and transformational role in the way society responds to mass emergencies and disaster.” Furthermore, due to the fact that an online community can potentially be created, these groups have the potential to be more sustainable than offline emergent groups, and therefore to contribute to responses and recoveries in unseen ways.

Regardless of the fact that online emergent groups are becoming more common, research is scant. As with offline emergent groups, little is known about what they do, what their organisational structure is like, how they might contribute during a disaster, and if and how these groups can contribute positively to the recovery and community resilience. It is not known if the same issues that plague

¹² Online communities have existed for a long time on the Internet, and they exist when people physically remote from one another gather in virtual spaces to communicate at the same time in settings such as chat rooms or online discussion forums (DiMaggio et al., 2001). It is important to distinguish between the different types of online communities and groups when researching them, as they come in different shapes and sizes. More is becoming known about virtual communities, but little is known about their performance, or the qualitative character of these relationships that exist online (DiMaggio et al.). While debate that is beyond the scope of this thesis rages about whether the Internet weakens or strengthens the community and what the changes are (DiMaggio et al.), “enthusiasts see the Internet as extending and enhancing community” (Wellman, Boase & Chen, 2002, p. 152).

spontaneous volunteers and offline emergent groups are relevant to online emergent groups.

Papers exploring detailed case studies of the leadership qualities and traits of leaders of offline emergent groups could not be found, and there may be a reason for this, as stated by Stallings and Quarantelli (1985):

Structurally these groups tend to be relatively undifferentiated. That is, they have a flat hierarchy with little distance between the top and bottom. There is usually a division of labour, but roles are ordinarily not highly specialized. There are few, if any, symbols of office, and seldom are there clearly designated leaders. Nor is there likely to be a formally assigned liaison or boundary person for dealing with other organizations. Among other things, these structural properties make it difficult for those outside the group to develop relationships with it. (p. 95)

Thus examining the characteristics and functions of the leaders of emergent groups is challenging, and even though the leadership provided by the Administrator of an online emergent group is critical to the success or failure of an initiative, little research exists in this area. This is examined in more detail in Chapter 3.

To return specifically to Facebook then, there are some references in the literature to Facebook pages that have been created by emergent groups, but a search for these pages, and more importantly, research on them, is difficult to find. A Facebook page with a large following was supposedly set up after the Haitian earthquake (it is mentioned by the Pew Research Centre, 2010, and Gross, when writing for CNN, 2010) but this could not be found. Belblidia (2010) mentioned a group – the *Hurricane Gustav Digital Support Brigade* – but no research or even the original page could be found. Many of the online emergent groups referenced cannot be found, as they presumably no longer exist, or have not been researched academically.¹³ This is perhaps again due to their disbanding before research could

¹³ A comment was made earlier in this thesis that online emergent groups may hold more promise than offline emergent groups in that they may help form sustainable online communities. The fact that many of these online emergent groups cannot be found seems to contradict this argument. However, it is argued that this is why

be undertaken; or perhaps because their utility was not fully appreciated and they were not selected to be examined as a case study.¹⁴

Some research has examined why people come to social media pages, such as to find information (Taylor et al., 2012; Bird, Ling & Haynes, 2012), but little could be found in the way of exploring what people who come to these pages in order to *volunteer* actually then do, or examining those who turn to it to source or provide psychological and emotional support. Thus more research is needed to increase the knowledge base around online emergent community groups after an emergency, and to explore whether these groups may be able to positively impact on a community's resilience after a disaster event.

Conclusion

In times of crisis, the community is turning to social media as a way to source information, request help, and offer help. Little research empirically examines specifically how social media is used, especially in the context of being used as a tool to facilitate the actions of spontaneous volunteers who form emergent groups, research gaps of interest to this thesis. In consideration of the elements in Norris et al.'s (2008) model of community resilience, it is possible that social media-driven emergent groups can contribute to resilience. This is explored in the following chapter.

2. Chapter 2 – Theoretical Models of Resilience

research that does examine 'successful' case studies in detail is even more important, in an attempt to establish the characteristics of the online emergent groups that are sustained and effective.

¹⁴ Sutton et al. (2008) describe three websites that sound similar to online emergent groups, but one is no longer there, the other was a pre-existing site that was only used as a disaster website during that time, and the third redirects to a news website (www.ramonarelief.com; www.rimoftheworld.net and www.signonsandiego.com respectively).

Introduction

As outlined in the previous chapter, disaster risk reduction is increasingly being framed in terms of the principle of shared responsibility, whereby the “community” is expected to play a more active role in disaster prevention, preparation, response and recovery. It is becoming a critical issue within emergency management, and a key component of a focus on shared responsibility is the attention on increasing community resilience.¹⁵

In the Australian National Strategy for Disaster Resilience (COAG, 2011), a number of goals are set out in order to increase resilience. These include having communities comprised of individuals who understand the risks they face, who have taken steps to anticipate disasters, and who are a part of strong social networks.

In the past, standard emergency management planning emphasised the documentation of roles, responsibilities and procedures. Increasingly, these plans consider arrangements for prevention, mitigation, preparedness and recovery, as well as response. Building upon our existing emergency planning arrangements, we need to focus more on action-based resilience planning to strengthen local capacity and capability, with greater emphasis on community engagement and a better understanding of the diversity, needs, strengths and vulnerabilities within communities. (p.2)

This focus on shared responsibility and resilience is not just a priority in Australia, but internationally. For example, the Hyogo Framework for Action was developed from the 2005 World Conference on Disaster Reduction, and one of the five main priorities was the importance of building a culture of safety and resilience (UN, n.d.).

In this chapter, the model of resilience put forward by Norris et al. (2008), which was introduced in the previous chapter, and a second model from the same authors, will be explored. These are useful frameworks for examining whether social

¹⁵ Again it is important to highlight that the official use of the term “community” can hide important aspects of diversity apparent in community groups. Social media offers a useful mechanism for articulating and assessing the nature of this diversity, and the implications it has on response, recovery, and shared responsibility.

media and emergent groups of spontaneous volunteers may be able to positively impact resilience.

While the term *resilience* has come to play a prominent role in emergency management (COAG, 2011), this popularity belies two significant challenges to its study, which have both already been mentioned in the previous chapter. Firstly, resilience is difficult to define. Secondly, the crucible in which resilience is forged and enacted, the community, is similarly difficult to delineate. Yet defining both is vital and it is to this issue that this thesis now turns.

Firstly, what is a community? The difficulties in arriving at a useful definition have been highlighted (Norris et al., 2008; Paton & McClure, 2013). An important issue in contemporary studies of community life is the need to differentiate between *communities of place*, *relational communities* and *online communities*.

Communities of place are communities defined by the geographical location in which the members live, and typically, but not always, a community of place refers to an entity that has both geographical boundaries, and a shared fate (Norris et al., 2008; Wellman et al., 2002). Relational communities are those defined by a shared belief or interest, such as a religion, sports team, or workplace. Due to the increased ubiquity of the Internet people have been able to traverse geographical boundaries, and to network and operate in communities of interest in ways they were never able to prior to the Internet age (Palen et al., 2007). Thus there are now also virtual communities, which are those that form online amongst people who may or may not be connected in the offline world (DiMaggio, Hargittai, Neuman & Robinson, 2001).

While locational, relational and virtual communities can overlap, the growth of relational and virtual communities has significant disaster risk reduction implications. The community affected by an emergency is no longer only nested in areas susceptible to experiencing hazard consequences. Hazards will continue to have geographically specific impacts, but those affected may not relate to others in that area. That is, people may be affected by disasters not because they or their family members and close friends live in the impacted zone, but because they are connected to those impacted by a relational or online community of which they are a part.

In this thesis, community refers to any individuals affected by the disaster event, and includes community members both in the affected area and out of the affected area, and those witnessing or affected by the disaster in an online environment.

The term resilience currently has multiple definitions and uses. The literature on resilience is now so vast that it is almost impossible to try to summarise it (Alexander, 2013a; Cox & Perry, 2011; Taylor et al., 2012, Norris et al., 2008; McAslan, 2011).¹⁶ In effect, community resilience is a reflection of people's unique and shared abilities and capacities to respond and adapt to the losses and large demands placed on them and their resources during times of crisis. It refers to the process linking a range of adaptive capacities in order to adapt to a disturbance, and to continue functioning (Norris et al.; Paton, 2006). In general terms, it concerns people's ability to access resources, interconnect with others in their community to

¹⁶ An in depth review of the history of the term resilience, which has its roots in the sciences of physics and mathematics (Alexander, 2013a), is beyond the scope of this study, but see Norris et al. (2008) for a review of different representative definitions of resilience. The goal of this thesis is not to enter this definitional debate. Rather the objective is to focus on a benchmark model of resilience and examine its utility in a virtual community environment.

source help, have access to accurate information, and be able to collaborate with others to work together to achieve shared goals (Norris et al.).

In order to examine more critically if social media can facilitate resilience, two specific models of resilience have been chosen as frameworks for this thesis, both of which were developed by Norris et al. (2008). These were selected for a number of reasons. The authors are experts in the field, and the models are formed by the authors out of theory developed by examining literature from several different disciplines. The models are two of the few well-structured, comprehensive and systematic models of resilience in the literature. Furthermore, one of the only other papers exploring the topic of social media and resilience utilised the same definition of resilience put forward by Norris et al. (see Taylor et al., 2012).¹⁷

Model 1: The 3Rs

The first model of interest, Figure 2.1 below, shows the development of stress resistance and resilience over time from Norris et al. (2008). In the framework, after a crisis event, there will either be resistance to the crisis, which is unusual, or there will be some transient dysfunction. The extent of dysfunction will depend on how severe, long, and unexpected the crisis is, and how rapidly and comprehensively resources are mobilised in response. The consequent outcome is then either resilience, leading to adaptive functioning, or vulnerability, leading to ongoing dysfunction.

¹⁷ Although Taylor et al. (2012) used the definition of resilience proposed by Norris et al. (2008) that is critical to this thesis, which will be introduced and presented in Figure 2.1 below, they did not explore each component of the resilience model in detail in their study. This thesis hopes to explore each component in more depth.

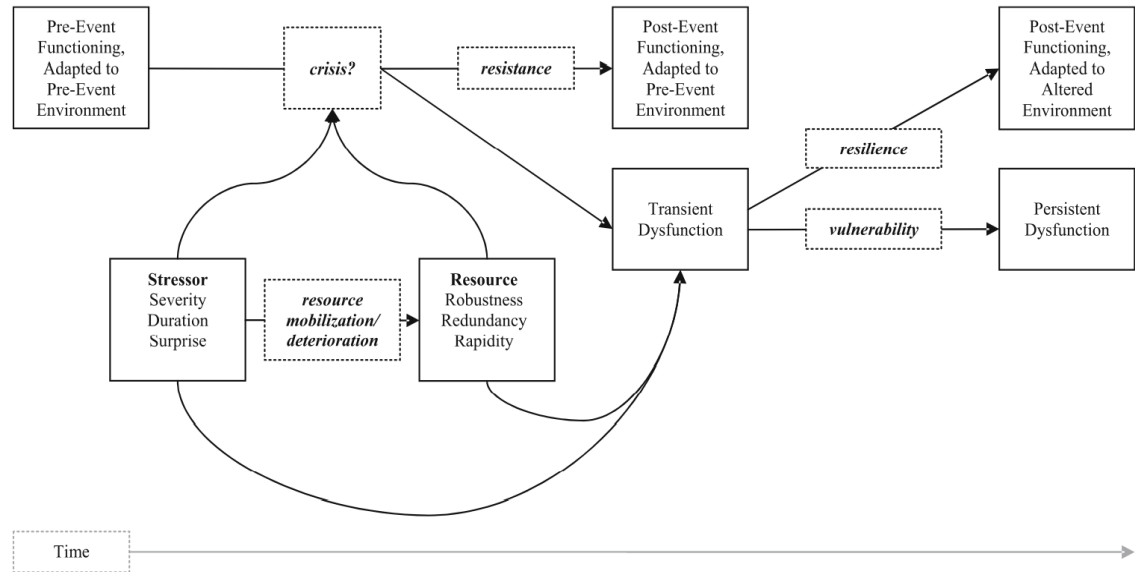


Figure 2.1. A model of stress resistance and resilience over time (Norris et al., 2008, p. 130)

The box of most interest to this thesis concerns resources. The model suggests that the way resources are mobilised contributes to the level of resilience experienced. The figure proposes that there will be improved resilience if resources (objects, conditions, characteristics and energies that are of value) are sufficiently *robust* (strong and with a low risk of deterioration), *redundant* (easily substitutable with other resources in the event of deterioration), and *rapid* (the resource can be mobilised and used quickly) to buffer or counteract the effects of the stressor. These are known as the 3Rs.¹⁸

The model proposes that there will be improved functioning post-disaster if resources have robustness, redundancy and rapidity. In this thesis these 3Rs will be considered in the social media context, as it is argued that it is possible that social media and emergent groups can facilitate these 3Rs, thereby potentially enhancing

¹⁸ The data collected for this thesis could not inform about a number of the other elements in Norris et al.'s model (2008). For example, no pre-event functioning data was collected. Participants were also not asked about how severe or unexpected the crisis was. Long-term follow-up data was also not collected, so assessing if the participants experienced post-event functioning or persistent dysfunction cannot be explored. These are clearly areas that would benefit significantly from future research. For this thesis, based on the data available, the 3Rs will be focused on.

resilience. For example, the Internet can reduce issues with time restraints whereby information can be distributed and exchanged with many all at once, which alone is able to facilitate both participation and civic awareness amongst people who are interested (Kavanaugh et al., 2005).

Model 2: Four adaptive capacities

The second model of interest from Norris et al. (2008) appears below (see Figure 2.2). Norris et al. outline the four primary sets of networked resources that they argue underpin community resilience. These are *information and communication, community competence, social capital, and economic development*.

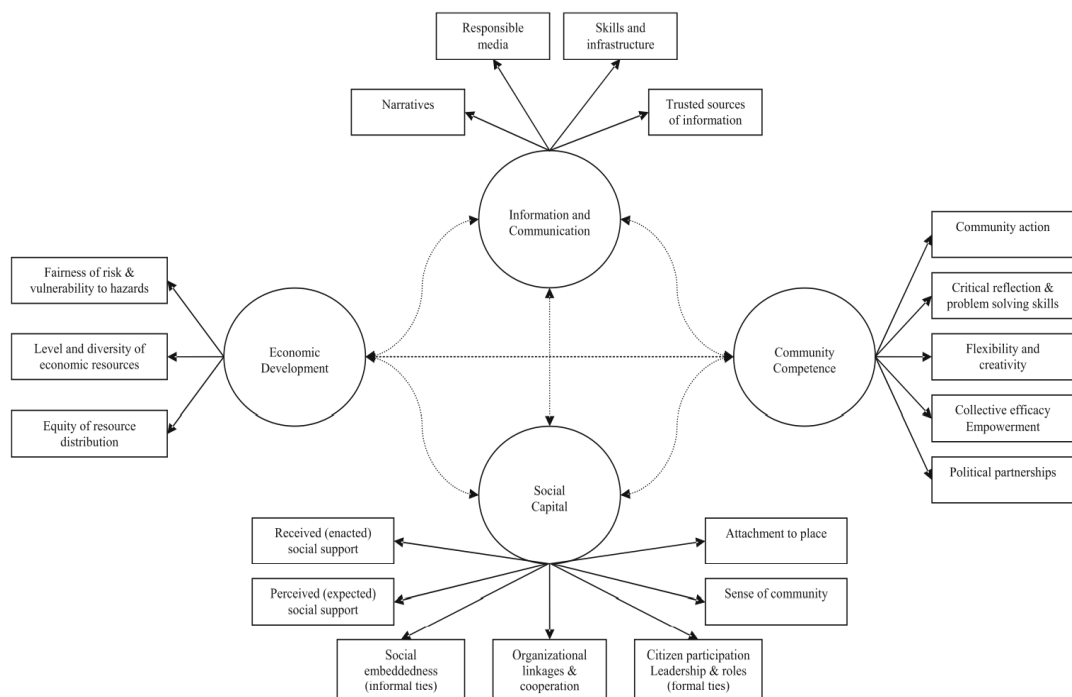


Figure 2.2. Community resilience as a set of networked adaptive capacities (Norris et al., 2008, p. 236)

It is of interest whether emergent groups utilising social media may be able to enhance resilience, as defined by Norris et al.'s model (2008). Because Norris et al.'s model derived from research with more traditional types of community based on

social interaction (whether geographic or relational), it is important to first identify its potential application to more virtual communities. The models have not been applied to the social media context. Each of the four primary resources will be explored below, in the context of how they may be facilitated by online emergent groups and spontaneous volunteers operating over social media.

Also of interest is how each component of resilience relates to shared responsibility. That is, of the components in the model, which should community take a greater share of the responsibility for, and which should agencies take a greater share of the responsibility for? Discussion of this evaluation process starts with economic development.

Economic development

The first resource in the model, *economic development*, refers to the resources made available to a community, how diverse those resources are, and if they are shared and distributed equally. Norris et al. (2008) argue that communities are more resilient if there are adequate resources, that are equally shared, and if the community is not relying heavily on one single industry or resource. According to Norris et al., “the capacity to distribute post-disaster resources to those who most need them seems vitally important for community resilience” (p. 137).¹⁹

It is known that in times of crisis, resources are often distributed unevenly.²⁰ Gardner (2013) explains that this unequal division of resources is one of the main drivers of emergent groups forming:

¹⁹ It is important to note that Norris et al. (2008) had a focus on disaster readiness. Thus when considering economic development, much of their discussion concerns what resources need to be in place prior to an emergency event happening. Nevertheless, it is useful to look at the model in terms of what resources need to be mobilised after a disaster has occurred.

²⁰ ‘Information’ and ‘social support’ are seen as resources, but for this model and for this section, when resources are mentioned, this refers to physical resources like money and goods. Other sorts of resources will be discussed shortly.

In the immediate post-impact time frame, first responders and other relief personnel encounter logistical roadblocks, unstable environmental conditions, or inaccurate or incomplete information about where help is needed most. Because of the instability of the post-disaster environment, essential resources, supplies, equipment, and personnel are distributed unevenly. (p. 241)

It is argued that the usage of social media in times of crisis may assist with both the sourcing and allocation of resources in a disaster situation, as people may be able to communicate their needs effectively in this online, public forum. The tendency for the community to want to donate and assist is well documented and has been introduced in Chapter 1.²¹ It is possible that social media may be able to help facilitate this donation and volunteering process in a way that satisfies the 3Rs. For example, social media may help people to source resources and assistance rapidly. It is proposed that online emergent groups can facilitate economic development and therefore resilience by giving people a voice to be able to inform what resources they need,²² especially those who are the most vulnerable, and by getting help to them in the form of access to resources to where it is needed the most in an equitable way.

Social capital

The second resource in Norris et al.'s model (2008, see Figure 2.2) that is proposed to facilitate and enhance community resilience, *social capital*, relates to the interconnectedness that exists between individuals and organisations and communities. This interconnectedness creates strength when there is social support (both received and perceived), a high sense of community, social embeddedness, organisational linkages and cooperation, citizen participation, leadership, and a strong attachment to place.

²¹ See Chapter 1, Spontaneous Volunteers

²² Alexander (2013b) notes that social media gives people a voice, especially people who do not normally have one. He notes that social media “enable remarkably democratic form of participation in public debate and facilitate the exchange of information and points of view” (n.p.).

In a simplistic sense, social capital refers to the myriad of resources available to a person due to the accumulation of their relationships with others, and it is the norms, networks and mutual trust that facilitate citizens and institutions to engage in cooperative action (Coleman, 1988). The core intuition of the concept of social capital is that “the goodwill others have towards us is a valuable resource” (Adler & Kwon, 2002, p. 18).

Based on the work of Putnam (2000), Wellman et al. (2001) defined three categories of social capital: *bonding social capital* (strong ties between, for example, family members and close friends), *bridging social capital* (weak ties between people with similar economic status who may be from different backgrounds), and *linking social capital* (weak ties between community and those in positions of influence such as schools or police).

Weak ties (bridging or linking social capital) link members of a group together and function to integrate them into a larger social network or community that would not be connected without these ties, while strong ties (bonding social capital) create and encourage the ongoing maintenance of links and connections with others that are vital for a community group to be able to stay alive (Granovetter, 1983). Individuals with few weak ties are deemed to be deprived of information from other, distant parts of the social system, and will only be able to have access to the news and information and viewpoints of their close friends only (Kavanaugh et al., 2005). As Granovetter (1983) comments in relation to people with few weak ties:

Furthermore, such individuals may be difficult to organise or integrate into political movements of any kind, since membership in movements or goal-oriented organisations typically results from being recruited by friends. While members of one or two cliques may be efficiently recruited, the problem is that, without weak ties, any momentum generated in this way does not spread beyond the clique. As a result, most of the population will be untouched. (p. 202)

In the disaster context, the greater a person's strong and weak social ties, the more likely they are to receive information about recommendations to evacuate during a disaster (Norris et al., 2008). Haines, Hurlbert and Beggs (1996) examined the assistance given to those after a hurricane event and found that people who were embedded in larger social networks were more likely to volunteer and help after a disaster than those who were in smaller social networks.

It is important to consider what effect the Internet and social media has on social capital, in order to establish whether they can have a positive impact on community resilience. Researchers have been studying the effects of the Internet on social capital, civic engagement and other indicators of community since before social networking sites became popular (Donath & Boyd, 2004; Wellman et al., 2001). Some researchers have argued that Internet usage has a negative impact, such as reducing interactions both in and outside the home and alienating people (Beaudoin, 2008; Nie, 2001).

However, an increasing body of work has argued that Internet usage contributes positively to civic life and community creation and engagement (Kraut, Patterson, Lundmark, Kiesler, Mukophadhyay & Scherlis, 1998; Wellman et al., 2002). For its application in the disaster risk reduction space, it is important to identify whether social media does facilitate the development of the kind of functional community and social network relationships that can, for example, act to provide diverse and meaningful social support that is tailored to people's specific needs. It is also important to identify whether social media can facilitate the development of these communities at the time they are required, and if the usage of it can help enact collective action to deal with local needs and issues.

Ellison et al. (2007) found that participation in online communities was a powerful predictor of online social capital,²³ pointing to the possibility that there is a ‘spill over’ of social capital from the online to the offline space, “Social trust and reciprocity are enhanced through collective use of the Internet, may in turn enhance the level of social participation in the offline world and indicate the socially positive effect of Internet use” (p. 604). Woolcock (2002) argues that linking social capital is critical to reducing vulnerability in a community post-disaster, as people are more connected to others, and therefore have a great safety net or buffer of financial, informational, physical and psychological resources from which to draw. Therefore it is promising that researchers have emphasised how important linkages forged over the Internet are for the formation of linking ties (DiMaggio et al., 2001; Kavanaugh et al., 2005).

Looking more specifically at social media, it is possible that social capital can be enhanced by the existence of online connections during an emergency, as it can both create new communities, and re-energise old communities (McMillan, 1996). Indeed, social media would largely not exist without social capital, as expressed by Schellong (2007),

To a large extent, it is not the computers, the software or the people who run them that have the power. Rather, the power of transformation of social media comes from the social capital that the people behind social media possess by coming together to share ideas and information... Without social capital, social media cannot transform or change emergency management because there will be no people that are involved organizing, sorting, sharing information during a disaster. Thus, if social capital continues to grow via online connections, it is highly likely that there will be further transformation of the emergency management. So far, social media has already been making inroads in many directions (p. 4)

²³ Ellison et al. (2007) introduce a form of social capital they define as “maintained social capital”, which refers to the ability to maintain important connections to others across the life span and life changes. Their research found a strong association between uses of Facebook and three types of social capital – maintained social capital, bonding social capital and bridging social capital.

Donath and Boyd (2004) and Wellman, Haase, Witte and Hampton (2001) have hypothesised that social networking sites can significantly increase social capital because of the ease with which people can form and maintain weak ties, an idea supported by Valenzuela, Park and Kee (2009),

The features of Facebook allow for the production and maintenance of both strong ties and weak ties and, by extension, can influence positively users' life satisfaction, trust and public participation (p. 881)

These weak ties enable people to create and maintain larger networks of relationships and friends, which they could then potentially use as resources (Nakagawa & Shaw, 2004). Social media operates as a platform for connecting networks of individuals when they connect with others through their own personal accounts. The potential for social media to contribute to social capital is enhanced further when many different individual people elect to join a public Facebook page, such as those created by emergent groups during a disaster. This means they are exposed to relevant information and contacts outside of their normal virtual community. As said by Valenzuela et al., "Individuals with a large and diverse network of contacts are thought to have more social capital than individuals with small, less diverse networks" (2009, p. 877).

Thus it is argued that emergent groups operating online may be able to harness and capitalise on pre-existing social capital, which according to Norris et al. (2008) can enhance community resilience. It is also proposed that because of how social media works and the networks it can create, 'new' social capital in the form of the creation of more linking ties may be created.

Information and communication

The third resource in Norris et al.'s model (2008) that can enhance community resilience concerns people's need for accurate information during a disaster. It also refers to a shared understanding of what has happened, so that people can connect and share stories and a collective narrative. The ability to share stories is important post-disaster. Norris et al. (2008) suggest that sharing narratives can assist with community resilience. There is evidence that social media can facilitate storytelling, as expressed by Sutton et al. (2008),

Thus sharing of information via text-based sharing sites can serve a dual purpose of providing much needed information to others through a psychologically beneficial practice of talking about traumatic events. (n.p.)

Information (and the ability to use it) is a critical facet of resilience, which is why in a White Paper released after the Haitian earthquake, the US Department of State Humanitarian Information Unit recommends that information is 'set free' (2010).

Make critical data and information sharable with the host government, civil society, and affected populations (in local language) in order to strengthen host country capacities, leverage local expertise, gain their valuable input, involve them in coordination, and empower them for future transitions. (p. 6)

This push to make information available is reflected by Comfort et al. (2004, p. 305), "A common assumption in disaster management is that lack of information is the basic factor in limiting the efficiency of response among organizations, and significant efforts are being made to improve this capacity."

People crave accurate and rapid communication of information from official sources and from other local sources about what is happening in a disaster (Comfort, Ko & Kagorecki, 2004; Ehnis & Bunker, 2012). People search for specific and personalised information, and they now turn to social media to supplement the information from official channels and mainstream media (Bruns, Burgess,

Crawford, & Shaw, 2012). People go to local sources to tap into the knowledge that is available from their fellow residents (Palen et al., 2012).

One of the most frequently cited reasons people give for turning to social media to get information in times of crisis is that they are dissatisfied with information provided by traditional media (Shklovski, Burke, Kiesler & Kraut, 2010; Sutton et al., 2008). In large disasters, change is too rapid and there is such a great level of need over such a large area that official responders and mass media struggle to keep up with the information needs of the affected community (Palen et al., 2012). It is proposed that emergent groups operating online may be able to assist with the dissemination and exchange of information during a disaster, which in turn, may enhance community resilience.

The media adds to awareness of an event in this globally connected world and can trigger stress, as people around the world see images of the human costs of a disaster, but it can also trigger compassion and the desire to help (Raphael & Ma, 2011). Information being shared over social media may be able to improve the amount of volunteering offered during a disaster, as social media can be used as an advertising tool. During the floods in Queensland, the Brisbane City Council requested via Facebook for people to come and help remove the mud. As many as 60,000 people were estimated to have volunteered,

This overwhelming community response and volunteering effort has never been experienced before. So, how did it happen and what opportunities does it present? Firstly, social media and crisis communication played a significant role in information dissemination during and after the flood crisis. Social media provided the most up-to-date information from and to the community and enabled contact between government, family and friends; it mobilised entire communities into what would be dubbed the 'mud army'. The worldwide level of interest and support created an emotional response. (Rafter, 2013, p. 190)

Similarly, Cottrell (2012) examined why people chose to volunteer after the Black Saturday bushfires in Victoria in 2009. In this study, some 43.8% identified the large size or scale of the emergency as the impetus to volunteer, 25.8% because they saw a need, or had a desire to help, and 20.0% because they identified with the community affected.

It is interesting to note that social media was not as popular during these events as it is now, thus it can be assumed that social media may be able to raise greater awareness of what is happening in a disaster and reveal the needs of the community more clearly than when social media was not as popular. For these reasons, it is proposed that the ability to share and source information over social media can assist with raising awareness of events, and encouraging more people to assist the affected community.

In terms of shared responsibility, the component of information and communication is important to explore, as it is the interaction and communication between formal responders and the community which ensures and establishes that each group is taking care of the roles and responsibilities they have. If social media and online emergent groups can facilitate better information exchange and communication, there is likely to be improved shared responsibility, and therefore according to both Norris et al.'s model (2008) and the National Strategy for Disaster Resilience (COAG, 2011), enhanced community resilience.

Community competence

The last element of the model put forward by Norris et al. (2008, see Figure 2.2), *community competence*, describes people's capacity to engage in action that is intentional and meaningful. Community competence is the ability to collaborate with other members of the community, to form a working consensus, to work together to achieve goals and to work together effectively across a range of tasks. It can be viewed as human agency to engage in collective decision-making and action.

The International Association of Public Participation (IAP2) Spectrum of Public Participation proposes that there are five levels of potential engagement between agency and government with the community from the least amount of engagement to the most: *inform, consult, involve, collaborate, and empower* (CDEM, 2010). Empowerment occurs when the community is managing their own issues and making their own decisions (CDEM, 2010). According to Norris et al. (2008), empowerment is a key component of resilience. It is also a key component of shared responsibility (Paton, 2008).

In typical command-control style responses and recoveries, engagement with the community may only satisfy the first few levels of the Spectrum outlined by IAP2, and it can be challenging to truly empower the community. For example, in a Red Cross survey of spontaneous volunteers who had registered their interest to volunteer with formal agencies (for example, the Red Cross, Volunteering Queensland and the Victorian Bushfire Reconstruction and Recovery Authority),²⁴ it was found that 55.4% of people said they wanted to volunteer in ways that used their qualifications or work experience, but only 9.3% felt that their skills have been used

²⁴ As explored in Chapter 1, there are numerous definitions of 'spontaneous volunteer'. The volunteers in Cottrell's study (2012) were those seeking direction and affiliation with an official organisation. Not all spontaneous volunteers do this – many self-organise and do things independently; or they form emergent groups. While Cottrell's research is useful, it does not inform about the people who remain independent and engage in voluntary helping behaviours. This is a gap this thesis hopes to fill.

appropriately (Cottrell, 2012). As discussed in Research Question 1, it can be challenging for emergency professionals dealing with spontaneous volunteers who arrive and seek direction to match them with the right tasks. The desire to feel empowered may go some ways to explaining why the community tends to look for ways to assist over social media.

Through social media it is possible that there is greater opportunity for collaboration and empowerment. A major strength of social networking sites is that people can communicate easily, but they can also collaborate easily even when they are dispersed over a large geographical area (Palen et al., 2007). This is an advantage to emergency management and the building of community resilience, as often after a disaster people are scattered widely and it can be hard to connect or coordinate with them (Belblidia, 2010). It is possible that the use of social media by online emergent groups may enable the community to collaborate and problem solve in an effective manner.

Having an empowered group such an online emergent group that can self-deploy has potential as a way to increase community competence. When looking at the spontaneous volunteers that appeared after the World Trade Centre attacks, Kendra and Wachtendorf (2001) noted that this initiative or empowerment was important:

The most "successful" volunteers – those who negotiated access and got past gatekeepers – were those who were able to work with minimal supervision by official emergency workers. Far from requiring supervision, the military officer acted quite independently; the chiropractor required only space in which to work and some pallets on which to place his mattress. In other words, the incorporation of these volunteers into the response required little or no effort on the part of emergency managers, or the effort was counterbalanced by manifest benefits. (p. 22)

Conclusion

In the literature to date there is little research exploring whether an emergent group using social media can contribute to the facilitation of shared responsibility, and community resilience, as operationalised by Norris et al (2008). It is proposed that online emergent groups can enhance community resilience because they can help people to communicate directly with each other, and to source and exchange information. Furthermore, it is argued that these groups can both harness existing social capital and create new social capital through the formation of new linking ties over an online network. It is proposed that online emergent groups can mobilise resources in a rapid, redundant and robust way, and these groups can help to enhance community competence by empowering individuals during the response and recovery process.

There are two elements of disaster resilience not included in the Norris et al. (2008) model of community resilience (see Figure 2.2). These are *psychological first aid* and *leadership*.²⁵ It is argued in this thesis that both those elements belong in the model when testing it in the social media context. Both these concepts will be explored in the following chapter.

²⁵ It is acknowledged that leadership is included in Norris et al.'s model (2008, see Figure 2.2), but it is argued that in the social media context, leadership needs to take a more central role in the model. This will be discussed in the following chapter.

3. Chapter 3 – Introduction to Psychological First Aid and Leadership

Introduction

The previous chapter explored two models of community resilience put forward by Norris et al. (2008, see Figures 2.1 and 2.2). Figure 2.2 suggests that there are four key adaptive capacities (communication and information, social capital, economic development and community competence), and if they can be enhanced and supported, then community resilience will be improved. Figure 2.1 proposes that if resources can be made available in a rapid, robust and redundant way, then there is more likely to be a return to previous levels of adaptive functioning after a disaster event.

It is considered important to build on the established structure of these models, retaining the existing processes, but complementing them with processes relevant to the social media context. This is considered important because these models have not been explored in the social media context to date. The analysis of social media, community processes and resilience suggests scope for remodelling or developing the Norris et al. models. The model that will be focused on is Figure 2.2, the framework depicting the four main adaptive capacities necessary for community competence.

While the latitude for complementing the model is limitless, there are two key issues that warrant consideration when applying Norris et al.'s model (2008) to the social media context that have been selected for analysis in this thesis. The first is how an online emergent group using social media may be able to deliver and support psychological first aid. The second is a how the leadership and

Administration of an online group fits in with the model. Both will be explored in this chapter.

Psychological first aid

Psychological first aid is an approach taken after disasters to help people cope with the situation. It focuses on helping people feel calm, safe, supported, hopeful for the future and connected to other people in a way that does not victimise them (Burke, Richardson, & Whitton, 2013; Raphael & Ma, 2011). Vital elements of psychological first aid are for helpers to reinforce messages of validation, hope and, compassion, and to provide support and encourage positive expectations (Raphael & Ma).

According to Burke et al. (2013), the goals of psychological first aid are as follows:

Table 3.1. The goals of psychological first aid (Burke et al., 2013, p. 9)

Calm people	Reduce distress
Make people feel safe and secure	Identify and assist with current needs
Establish human connection	Facilitate people's social support
Help people understand the disaster and its context	Help people identify their own strengths and abilities to cope
Foster belief in people's ability to cope	Give hope
Assist with early screening for people needing further or specialised help	Promote adaptive functioning
Get people through the first period of high intensity and uncertainty	Set people up to be able to recover naturally from an event
Reduce the risk factors of mental illness as a result of the event, such as Post-Traumatic Stress Disorder	

The five elements of psychological first aid can be summarised as to *promote safety* (physical and emotional), *promote calm* (for those feeling overwhelmed or disoriented: help to stabilise them, listen to them and be friendly and compassionate), *promote connectedness* (connecting people to their loved ones and support networks and community and offer practical assistance), *promote self-efficacy* (engage people in meeting their own needs and to do their own problem-solving) and *promote hope* (convey the message that people will recover and that their feelings are normal) (Burke et al., 2013).

Psychological first aid is now an established and recommended part of the psychosocial support that is delivered in response to disasters (Raphael & Ma, 2011; Taylor et al., 2012). However, examining the delivery or outcomes of psychological first aid can be a challenging process, as the concept is difficult to measure due to its ethereal nature and the fact that it is often administered informally by individuals as one of their many other duties. It is not a concept that is systematically operationalised, thus it can be challenging to qualitatively measure. Scales that measure psychological first aid could not be found. Measuring the delivery, uptake and outcomes of psychological first aid in the offline world may indeed be an impossible undertaking, while it may be easier to assess when it is delivered in an online context.

Psychological first aid and social media

Little research to date has examined how social media may be able to support and provide psychological first aid. Taylor et al. (2012) have examined the impact of social media on psychological first aid during times of crisis. The authors looked for evidence that Facebook pages created and used during the Queensland floods,

Cyclone Yasi and other disaster events, had contributed to psychological first aid and resilience. They explored how the use of social media made people feel, and these results are presented below in Figure 3.1.

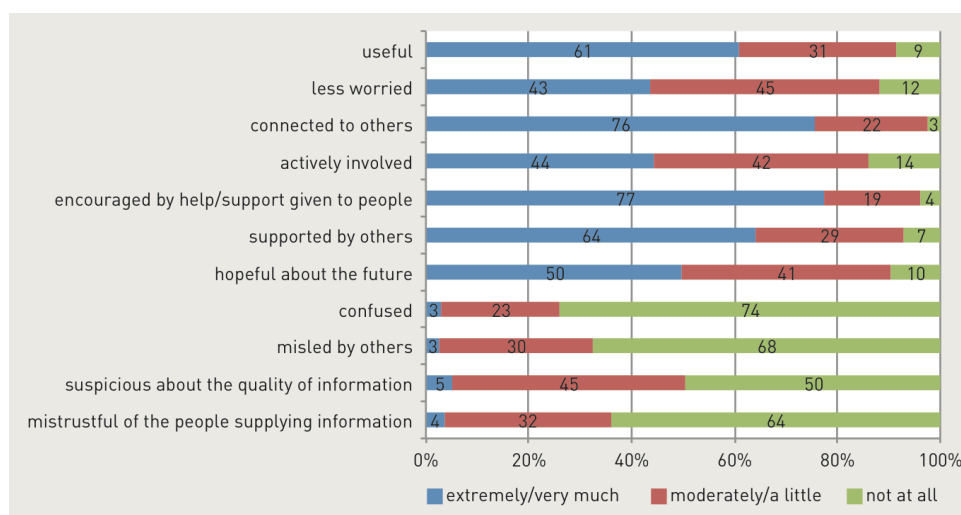


Figure 3.1. How use of social media made people feel in the study by Taylor et al. (2012, p. 25)

Taylor et al. (2012) found that the use of various social media sources helped people to feel useful, less worried, more connected to others, actively involved, encouraged by the support given to people, supported by others, and hopeful about the future. These results led Taylor et al. to conclude that social media can “expand capacity to deliver information, extend the reach of official messages, and limit the psychological damage caused by rumours and sensationalised media reporting” (p. 26). Acknowledging the potentially devastating psychological impact of uncertainty on mental health, Veil, Buehner and Palenchar (2011) note, “Leveraging social media, which allows direct sharing of information in a timely and accurate manner, can relieve uncertainty”. (p. 114).

It has been informally recognised that some of the goals of psychological first aid may be satisfied with the use of social media. According to the Queensland Police Service (Larkin, 2009) when referring to the QPS Facebook page during a

major flooding event: “While we can't prove that the work done by QPS media helped to save lives, hopefully we at least made the work of front line officers a little easier by informing and calming the people affected by these disasters” (p. 37).

Psychological first aid, as with physical first aid, needs to be administered quickly to be most effective (Brady, 2010; Eyre & Brady, 2013). It is therefore critical to be considering recovery at the same time as response, as the response itself can have long-term negative effects on people (Brady, 2010). Similarly, in terms of resilience, according to Norris et al. (2008), the rapidity with which information and resources are sourced has an impact on resilience. As one of the hallmarks of social media is how quickly people can connect online and information can be disseminated, it makes sense that it could be a useful medium through which to connect the community and provide psychological first aid.

It is argued that due to the accessibility of social media, and how quickly online emergent groups can organise and provide help, this sort of environment can assist with the provision of psychological first aid. Examining the goals and elements of psychological first aid provided by Burke et al. (2013) that were detailed above (Table 3.1), it is argued that community ad hoc emergent groups that appear online and create change in the real world may be able to help provide psychological first aid. For example, using social media, the community may be able to establish a human connection with those who have been affected, identify current needs, provide social support, give words of hope, and help people to understand the disaster that has taken place by bringing them news and information.

Although social support is mentioned in Norris et al.'s model (2008), psychological first aid is not included. It is argued that psychological first aid is a

construct that warrants consideration in the model when it is tested in the social media context.

Leadership

It has been proposed so far in this thesis that social media and online emergent groups may be able to positively contribute to community resilience, in addition to being able to provide needed psychological first aid to the community (a construct proposed to contribute to resilience). However, social media alone is simply a tool, and can be used effectively or poorly. Similarly, it is known that spontaneous volunteers and emergent groups can be more of a problem than a resource. When considering how an online group operates over social media during a disaster, the leadership provided by the Administrator (or creator) of a page is a critical component. Without leadership on Facebook, an emergent group will not form initially (a group or page must be started by an Administrator), and without appropriate leadership, an emergent group will not be sustained.²⁶ Thus if the possibility for social media and online emergent groups to contribute positively to resilience is put forward, the characteristics of the leadership of these groups becomes an *essential* element in the process to examine.

Leadership is not a central element in the Norris et al. model (2008), and it is argued that when applying the model to emergent groups, and in particular, online emergent groups, leadership needs to be carefully considered and factored in. This

²⁶ Some online emergent communities such as wikis can be sustained without a key leader or group of leaders. For example, on Twitter, anyone can become a part of a group focused on a particular topic simply by following that particular hashtag. On Facebook however, there needs to be at least one Administrator for a page to move forward, even though once a page has been set up people may still comment on it in the absence of the Administrator posting. The way Facebook is structured is that posts created by the Administrator are central to the page, while posts made by other fans of the page appear less centrally. Posts by the Administrator, and the moderation of posts by the Administrator, drive a page.

thesis will explore how the leaders of emergent online groups operate, and inquire if this leadership can be factored into Norris et al.'s model in a more fundamental way.

The research field on leadership is substantial and complex. Management and leadership are not interchangeable terms. It is argued that management is about coping with complexity, bringing order and consistency by implementing formal plans, implementing rigid organisational structures, and engaging in the monitoring of outcomes and results against those plans and structures. Leadership is about coping with change, establishing direction with vision and aligning people to the vision and inspiring them to succeed and overcome difficulties (Kotter, 1986). It is argued that Administrators of Facebook pages need to demonstrate both highly skilled management and leadership.

Papers exploring detailed case studies of the leadership qualities and traits of leaders of offline emergent groups could not be found, which may be because many of them do not have leaders. This is echoed by research by Gardner (2013), who looked at emergent groups that formed post Hurricanes Katrina and Ike in the USA:

Apparently trying to secure an interview with a representative from the organization, one local journalist arrived and asked, "Can I speak to whoever is in charge here?" Jake, a short, wiry volunteer in his early 40s who was serving on security detail responded: "Well, we are all in charge here." While Jake's response appeared a bit dismissive on the surface, it articulated a key discursive practice within the relief volunteer community that placed rank and file volunteers alongside those in positions formal leadership. (p. 245)

Similarly, a study of an emergent group that formed post-September 11 at Ground Zero found that the group did not have one key leader. Instead there were a number of small groups operating on specific tasks and each of those groups had a small group of leaders (Voorhees, 2007). For this reason, it was difficult to establish 'who was who':

While most volunteers work within a defined area, several boundary spanners facilitated communication channels with other organizations. For

example, several persons were active in soliciting donations of goods or services from local establishments while another person acted as the primary contact with the Sanitation Department. These gatekeepers and boundary spanners were few and often difficult to identify. (p. 7)

When exploring emergent groups offline, Stallings and Quarantelli (1985) state that: “core decision making is almost always informal and highly democratic except in some instances where there is a charismatic leader who typically had been one of the group’s founders” (p. 96). Thus offline emergent groups operate without clear leadership in many cases. When considering the leadership of online groups, aside from some anecdotal or brief detail about the Administrators or leaders of online emergent groups (such as Taylor et al., 2012), the literature does not offer any insights at all. In the absence of direction on this issue then, three potentially important elements of online group leadership have been selected to examine in this thesis. These are that the leader provides *syncretical leadership*, is a skilled *apomediator*, and is able to establish *legitimacy*. Each will be explored now. Finally, how leadership may fit in with Norris et al.’s models of resilience (2008) is discussed.

Syncretical leadership

There is general consensus that good leaders have intelligence, honesty, self-confidence, high energy, ambition, a desire to lead, task-relevant knowledge, charisma, the ability to communicate a vision, self-monitoring skills, adaptability to different circumstances, and high emotional intelligence (Robbins, Millett, Cacioppe, & Waters-Marsh, 2001). A variety of comprehensive leadership models exist in the literature. A number of these models could potentially summarise the role of the Administrator of an online emergent group, such as models of transformational leadership, democratic leadership, and participative leadership, but

it is to models of charisma that this thesis now turns (Bennis, 1994; Conger & Kanungo, 1987).

Models of charisma have been chosen as it is argued that these best summarise the type of leadership relevant in the online space, particularly during times of crisis. Furthermore, the main model chosen for this thesis, which is detailed below (see Figure 3.2), the model of syncretical leadership, also encompasses many features of other types of leadership. It can be viewed as comprehensive.

Conger and Kanungo (1987) propose a number of different behavioural components of charismatic leaders, including an essential opposition to the status quo and a desire to change it. Charismatic leaders are experts in using unconventional means to transcend the existing order, and they have a strong articulation of future vision and a motivation to lead. There has been a long scholarship on charismatic leadership, as explored by McCann, Langford and Rawlings (2006):

These theories focus on exceptional leaders who have extraordinary effects on their followers. According to these theories, such leaders transform the needs, values, preferences, and aspirations of followers from self-interest to team interest. Further, these leaders cause followers to become highly committed to both the leader's and organization's mission and to perform above and beyond the call of duty. (p. 3)

The model chosen to explore in this thesis is the syncretical model of charismatic leadership (Behling & McFillen, 1996), which is presented below (Figure 3.2). The value of Figure 3.2 can be traced to its ability to identify and operationalise key facets of charismatic leadership, as charismatic leadership is an elusive construct, and difficult to define and assess (Behling & McFillen). This model is also useful and relevant in the current context of an emergency event as it identifies the presence of psychic distress as an important mediator for charismatic leadership to be successful.

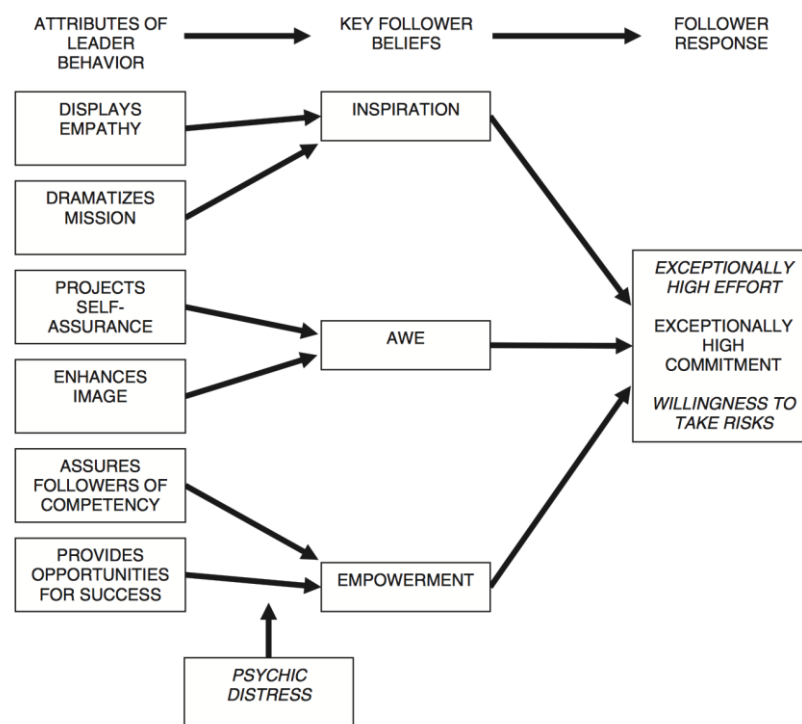


Figure 3.2. The syncretical model of charismatic leadership (Behling & McFillen, 1996, p. 166)

Behling and McFillen (1996) argue that the six attributes of leader behaviour on the left-hand side of the figure generate or strengthen the follower beliefs in the middle column. ‘Psychic distress’ is a key mediator, and is defined by the authors as “the job-related anxiety, fear, and frustration created by traumas such as organizational births, crisis, or malaise” (p. 166). The authors state that this is the only near-consensus factor in the leadership field that is proposed to help create the sort of conditions needed for this type of leadership to be effective. The authors argue that without psychic distress, the hypothesised relationships between leader and follower may not exist at all.

The key follower belief ‘inspiration’ refers to the perception that the leader’s activities have a transcendent ethical or moral purpose. It is argued that it occurs when a leader displays empathy (the ability to be sensitive to followers’ needs, fears

and wants), and dramatises the mission (using rhetoric, symbols, similes and metaphors to communicate what the mission and vision is about). The leader must have unswerving dedication to the mission, and the mission itself is seen to reach for higher goals, aims, causes or purposes rather than pragmatic day-to-day issues.

The key follower belief 'awe' is defined as an unreasoning faith in the leader's abilities. Followers have affection for these leaders, hold them in high esteem and are forgiving of their mistakes. It is argued that awe is created if the leader projects self-assurance (by having confidence in their ability and not needing constant reassurance or praise), and engages in image-enhancing behaviour (such as creating the impression of being attractive, competent and successful that is backed up by actual action).

The third key follower belief is about 'empowerment', which is followers' confidence in their own ability to control events and achieve tasks. It is proposed that this occurs if the leaders assure the followers of their competency (communicating faith in their abilities) and also provide ample opportunities to experience success (such as feedback, removing obstacles to good performance, and providing emotional support).

The model proposes that if followers feel inspiration, awe and empowerment for a charismatic leader, then they will contribute by giving an exceptionally high effort and high commitment, and being willing to take risks. The model has been tested in an organisational context (McCann et al., 2006), but research examining the syncretical model in the context of the leadership of online emergent groups does not exist to date.

In this thesis it is proposed that this is what occurred during the bushfire emergency. It is argued that the model could be a good fit to describe the leadership

of an online emergent group, and there is potential for many of the model's elements to be facilitated or amplified in a social media context. Thus in this thesis evidence for the Administrator of an online group having the attributes put forward by Behling and McFillen's model (1996), and the followers (that is, spontaneous volunteers who became fans of the page) demonstrating the key follower behaviours, will be explored. It is proposed that if the leader of an online emergent group can provide good leadership, then volunteers will contribute positively to the response and recovery, and critical elements for resilience, as per the models put forward by Norris et al. (2008) explored in the previous two chapters, such as communication and resource provision, will be provided.

Apomediation

In the social media context, it is argued that leaders also need to be highly skilled at managing information, and communicating online effectively. In terms of managing information, Administrators need to be skilled 'information filterers', as they collect, verify, organise and disseminate information, in order to lead and drive successful online emergent volunteer groups. Information filterers can also be termed *apomediaries*, as per the *apomediation theory* of Eysenbach (2008), which will now be explored.

Eysenbach (2008) details three ways that consumers identify information and services that are trustworthy and credible. The first way is to use gatekeepers or intermediaries. For example, traditionally the fire service is a gatekeeper between Point A, the general public, and Point B, knowledge about where a fire is impacting or about to impact. Without sourcing information from the fire service, the general public cannot access comprehensive information about fire behaviour and threat.

The second way is through cutting out the middleman or gatekeeper altogether, a process known as *disintermediation*. To continue with the fire service example from above, if a member of the general public wished to find out information about the location of a particular fire, they could ask the question on an online forum: this would represent cutting out the gatekeeper. Without the middleman or the gatekeeper, people can get faster access to information, but they can also have trouble finding the most relevant or useful information. Navigating this knowledge is the gatekeeper's primary role.

Greater access to information has paved the way for the third method that consumers use to identify and attain important and reliable information, which is through an apomediary. Eysenbach coined the term "apomediation" (2008). Apomediation is the process whereby people seek information through some sort of networked collaborative filtering process. This process is run by people who act as agents to guide consumers to high-quality information. Eysenbach argues that essentially all Web 2.0 environments are apomediated environments. He proposes that any skilled apomediarists can take over the traditional role of the intermediary or gatekeeper and guide people to relevant, accurate and useful information. It is proposed that the Administrators of online emergent groups can operate as apomediarists.²⁷

The model below (Figure 3.3) argues that whether a consumer prefers to use an apomediation environment or an intermediation environment is highly situation-specific. Without *knowledge*, *self-efficacy* and *autonomy*, the individual will rely on the intermediary or gatekeeper. Over time, as their own knowledge, autonomy and

²⁷ Information filterers or apomediarists are termed differently according to various researchers. De Longueville, Smith and Luraschi (2009) refer to them as 'aggregators', Sutton et al. (2008) call them 'information brokers' or 'technical facilitators'. Starbird, Palen, Hughes and Vieweg (2010) can also contribute to this discussion with the term 'news curation' whereby people draw on pre-existing information in the news to put together their own thoughts and comments.

self-efficacy increases, they will rely less on the experts, and become more empowered. They will then be more likely to source information through an apomediated environment. The top component in Figure 3.3 – empowerment – is an appropriate framework for examining shared responsibility and resilience in particular. It focuses on how individuals are able to take a greater responsibility for their knowledge and actions when they are armed with more information, which is of course a goal within emergency management.

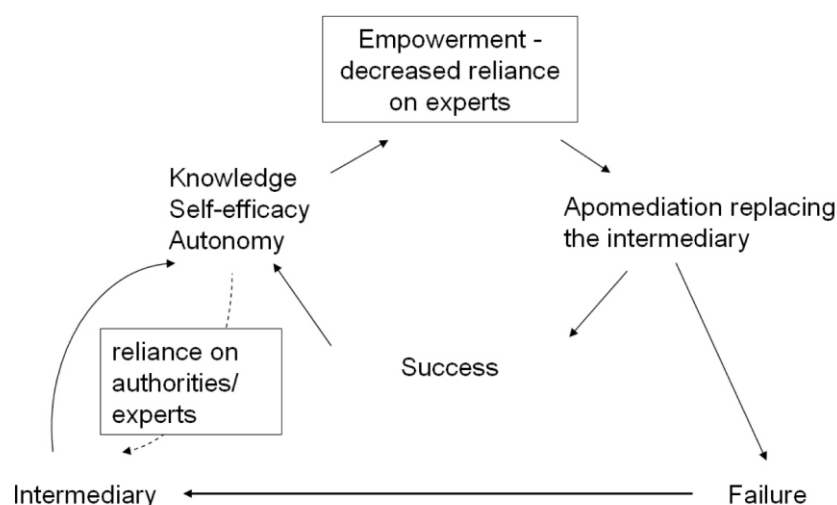


Figure 3.3. The Dynamic Intermediation-Disintermediation-Apomediation model (Eysenbach, 2008, p. 7)

The apomediated environment needs to provide quality information for people to rely on it. Monitoring content that is available on social media can be challenging, and a resource-heavy task, due to the deluge of content that appears on social media during an emergency (Starbird et al., 2010; Verma et al., 2011).²⁸ Having a skilled apomediator who can sort through and prioritise information is key for the success of an online emergent group.

²⁸ There has been a recent proliferation in the research and design of social media monitoring tools such as the Commonwealth Scientific and Industrial Research Organisation's (Australia's national science agency) 'ESA' and 'ERIC' software, and programs and services produced by New Zealand companies like 'Signal' and United Kingdom organisations such as 'Crest Advisory', as agencies attempt to use technology to manage the huge amount of data made available over social media.

There are some examples of apomediators functioning well during times of crisis. In the examination of social media usage after the Virginia Tech massacre, Vieweg, Palen, Liu, Hughes and Sutton (2008) found that there were instances of individuals acting as brokers of information, gathering it from elsewhere and distributing it. Hughes et al. (2008) mentioned a tweeter who acted as an apomediary on his Twitter account during the California wildfire disaster of 2007. There is no research however exploring in detail how these leaders curate information, for example: where they get their information from, how they handle it, and how they present it back to the users.

It is important to have an apomediated environment over social media because the information overload can be enormous. Furthermore, compared to the offline world, people are not as skilled in the online world at establishing if information is reliable or not (Castillo, Mendoza & Poblete, 2011):

Users online, lack the clues that they have in the real world to assess the credibility of the information to which they are exposed. This is even more evident in the case of inexperienced users, which can be easily misled by unreliable information. As microblogging gains more significance as a valid news resource, in particular during emergency situations and important events, it becomes critical to provide tools to validate the credibility of online information (p. 682).

Much of the content on social media can be opinion or emotion related posts (Bruns et al., 2012) and therefore not particularly useful to those impacted by a disaster. Official agencies will usually avoid these types of posts. From the community perspective, having an apomediary who curates the data can be useful, so that important information is made available to the public. However, there is also the opportunity and scope for the Administrator of a community-level page to include some of this type of content, as narratives may be useful when considering the provision of psychological first aid, and engaging with the crowd.

In a disaster, the coordination of information along and between connected nodes is critical, and it is not just about how much information is flowing through, but about making sure the core information is determined, and that it gets transmitted to the right people (Comfort, Ko & Zagorecki, 2003). The handling of information in a disaster is critical – both the sending and receiving of accurate information (Westbrook et al., 2012). Information is one of the main resources required by public authorities and the general public during an emergency (For-mukwai, 2010), which has been reflected in the results of this thesis. As put succinctly by Shklovski et al., “Natural disasters are also information disasters” (2010, p. 1232). Handling information can be difficult in the turbulent, fast-paced, confusing world that is an emergency (Yates & Paquette, 2011). In the context of an online emergent group, information management is critical.

Thus it is proposed that for a community to benefit from the actions of an online emergent group, the leader of these groups needs to be highly skilled with managing information. In particular, as communication and information is a key component in Norris et al.’s model of resilience (see Figure 2.2), it is clear that a focus on high quality information exchange is critical if community resilience is to be enhanced.

Legitimacy

A third key component of leadership that is argued to be critical for both offline and online emergent groups is the ability of the leader to establish the group’s credibility, or legitimacy.

Stallings and Quarantelli (1985) mention that for offline emergent groups, being recognised for their efforts by other organisations is a major factor for these

groups continuing to exist. Recognition provides visibility for their activities, and also serves to legitimate their functions. This is also discussed by Voorhees (2007), after examining an offline emergent group that formed after the World Trade Centre attacks:

An organization must be able to establish legitimacy for it to command inputs, secure personnel or pursue other tasks that form stable organizations. Legitimacy must be both internal and external to the organization, with the organization being accepted both legally and socially. (p. 6)

As discussed in Chapter 1,²⁹ Quarantelli and Dynes (1977) and others state that at least three problems are apparent for researchers seeking to explore offline emergent organisations in a disaster: they do not have the classic structures that organisations have (such as having clear boundaries and lines of authority), they lack the division of labour and complex communications patterns, and these groups are often transitory and then disappear. For these reasons it can be difficult for official responders to establish who these groups are, how or if to work with them, and whether they ought to be granted legitimacy or not. If a group is to be able to work with official responding organisations and have recognition or promotion by the mass media or other community members, that is, if shared responsibility is to be enhanced, these groups need to quickly establish some form of legitimacy.

Some research has looked at how offline emergent groups have established legitimacy in the past. Voorhees (2007) discusses how an emergent group post-September 11 gained legitimacy as they first formed. Legitimacy was granted in a number of ways, such as official organisations starting to give items to the group to hand out, the police letting them remain on public land even though they could have easily moved them on, and the city rubbish collectors coming and collecting their trash for them, when they would not normally have done so.

²⁹ See Chapter 1, Offline Emergent Groups

Papers exploring how online groups might establish their legitimacy during a disaster situation could not be found. It is argued that these groups must establish legitimacy, like offline groups must, and it is proposed that online emergent groups that operate in a public domain may find it easier to establish legitimacy. This is because these groups are visible and can be monitored in the online and offline space, their leaders can be contacted, and their actions can be observed. It is believed that groups need some of legitimacy to operate, and if they are granted legitimacy, they are more likely to be able to achieve tasks and collaborate with official responders. In turn, these online emergent groups may then have a positive impact on resilience.

Leadership and resilience

In the offline context, when looking at a town in Japan that recovered well after the 1995 Kobe earthquake, Nakagawa and Shaw (2004) suggested that there were strong bridging, bonding and linking ties in the community. The authors point out however that social capital alone is not enough to lead to successful rehabilitation; rather, it is a seed that needs facilitation to make it grow. Strong local leadership was a critical element in facilitating the recovery movement.

It is findings like this that support why Norris et al., (2008) have included leadership in their model. In the context of a social media emergent group, it is argued that leadership needs to have a more central role in Norris et al.'s model (2008). Although included in the key resource of social capital, in the context of how it is enacted online, leadership does not appear as a *key component* in the model put forward by Norris et al. (2008).

An online group cannot form in the first place without leadership, and it is argued it cannot be sustained without high quality leadership. The capacity for an online emergent group to enhance community resilience by, for example, providing resources to those in need, depends at least in some part on the leadership of the Administrator running the page. Thus an assessment of online leadership and management elements is important.

Conclusion

In this thesis it is proposed that two constructs warrant inclusion in Norris et al.'s model (2008) of community resilience, when considering how an online emergent group operating in a social media context may enhance resilience. The first is that psychological first aid may be able to be provided by online emergent groups in times of crisis, and this should be included in the model, as the provision of rapid psychological first aid can potentially have a positive impact on people's recovery (Burke et al., 2013; Eyre & Brady, 2013). It is believed that social media offers a functionality whereby providing this sort of first aid provision is possible.

The second issue is that when considering online emergent groups, skilled leadership is critical for the sustainability of these groups. Due to the potential for a leader to motivate and mobilise members of the community, and therefore enhance delivery of the four networked resources in a robust, redundant and rapid way, the attributes of quality online leadership need to be explored and represented in Norris et al.'s model (2008).

In the following chapter, the case study that is the focus of this thesis will be introduced.

4. Chapter 4 – The Current Project

Introduction

The current work is a case study of an online, emergent group that formed during a disaster event: an emergent group that utilised social media – specifically, Facebook – in an attempt to contribute to the response and recovery after an emergency. In this chapter, the fire emergency itself, a Facebook page that was created, the research rationale, implications, aims, research questions, methodology and timeline will be explored.

The following section contains a brief historical account of the Tasmanian bushfires of January 2013, collated from the State Government-commissioned Bushfire Inquiry (DPAC, 2013).³⁰ A summary of this report is included in order to provide the context and background for this research.

Below this summary, an anecdotal introduction to the Facebook page of interest to this thesis is provided. For simplicity and to rapidly provide the reader with context for this research, this section is purposely written with a personal and informal tone. It is the only section in this thesis that has an auto-ethnographic component; a decision reflected on shortly.

³⁰ The report was prepared by a team lead by former South Australian Police Commissioner, Special Investigator Mal Hyde. The report was released in October 2013, and referenced more than 102 inquiry submissions and 117 interviews with individuals across the private, public and community sectors. In total, there were 103 recommendations put forward by the Bushfire Inquiry, most of which were accepted by the State Government in office at the time.

The Tasmanian bushfires of 2013

Bushfire is a key part of the natural history of Tasmania, a state that belongs to one of the most bushfire prone areas in the world. The fires that began on January 3, 2013 were the State's worst in almost 40 years.³¹

Factors known to contribute to bushfire occurrence and continuation (such as wind speed, fuel characteristics and fuel moisture) were all unfavourable in early January 2013. Fire authorities in Australia use a Fire Danger Rating Scale to warn the public of the risk of bushfires at any given time. On January 4th, 2013 five locations in Tasmania were issued Catastrophic Danger Ratings, which are the worst possible ratings according to the national Fire Danger Rating Scale (AEMC, 2009).

The Tasmanian Fire Service (TFS) was the presiding fire department during the disaster of 2013. Three major fires burned over this period: the Lake Repulse Fire, the Bicheno Fire, and the Forcett Fire. In the early stages of the fire emergency, there was a fear of multiple fatalities, and for this reason the Forcett fire in particular was being treated as “an emergency at the highest level” (p. 65). It eventually became clear that no-one died as a direct result of the fire³² but as the Inquiry noted:

The physical, economic, social, psychological and environmental damage was substantial...Much of the damage is not quantifiable and there is presently no aggregation of the financial cost available. Some of the personal costs may not be capable of being financially quantifiable.

Overall structural damage consisted of:

- 431 properties were damaged or destroyed, of these properties, 203 residential buildings were destroyed
- 301 properties required the removal of a destroyed vehicle, outbuilding or house. (p. 50)

The Tasmanian Farmers and Grazier's Association (TFGA) estimated approximately 622 kilometres of commercial fencing was destroyed, while 10,000

³¹ These were the most destructive fires in Tasmania in terms of building loss and hectares burnt since the catastrophic fires of 1967, in which 62 people died and 900 were injured.

³² One Victorian fire fighter lost his life due to non-operational reasons.

head of cattle were also lost. The company that owns and maintains the power network and infrastructure in Tasmania, Aurora Energy, identified that 700 power poles were destroyed with over 100 kilometres of power lines grounded. The Insurance Council of Australia reported that 1,797 claims had been lodged, with losses valued at \$80 million. Overall, the total damage bill of the fires was estimated at more than \$100 million, a figure that excludes the costs of the emergency operation, costs to the public and private sector as a consequence of the fires, and other longer-term costs, which cannot be enumerated.

The Bushfire Inquiry identified several significant issues or problems with the official handling of the emergency response, and the subsequent recovery. There was confusion between authorities on which individual or groups were in charge of the entire emergency operation (p. 65). The police-appointed road closures were considered by many to be unnecessary, and were seen to have hindered the response significantly (p. 111).

The lack of interoperability between police and other emergency services' radio networks (p. 75) was another issue highlighted, as well as criticism of fire crews not protecting critical buildings and assets after the fire front had passed (p. 91). There was also confusion about when and who to evacuate (p. 114) and overall confusion on the fire grounds with emergency crews being overwhelmed and undermanned (p. 91). The TFGA stated that there was "no response by Government until the 7th January" (p. 135), which was four days after the fires had started.

The fact that there was no loss of life during the disaster was largely attributed to the geography of the worst hit area. As the Inquiry states, "a fortunate feature of this area on the Tasman and Forestier Peninsulas is the direct access to

seawater as a NSP³³ for most people, and it was used extensively in this way” (p. 119).

The Inquiry had seven Terms of Reference. Significantly, for the purpose of this thesis, one of these referred directly to the use of social media, and referred specifically to the Facebook page of interest to this thesis:

The terms of reference specifically require the Inquiry to examine the use and efficacy of the various forms of social media by ‘(a) authorities responding to bushfires, and (b) private citizens during the fires, and the adequacy of existing arrangements for dealing with that use in a constructive and safe manner.’ Though the terms of reference only identify authorities ‘responding’ to the fires, the Inquiry has taken this reference to include both response and recovery operations.

It is likely this term of reference is, at least partly, due to the ‘Tassie Fires – We can help’ Facebook page, set up during the fires by Mel Irons. This page is discussed below. (p. 169)

It is clear from the Bushfire Inquiry that the Facebook page analysed in this research – *Tassie Fires - We Can Help* – was a significant part of the bushfire response and recovery. It will be briefly introduced below.

An anecdotal introduction to *Tassie Fires - We Can Help*

On the afternoon after the fires had first begun, January 4, I was at home working. Being 60km away, my property was not under any threat from these blazes. I was listening to updates on Australian Broadcasting Commission (ABC) Local Radio.³⁴ I knew the situation was serious when the radio coverage of the disaster began rolling non-stop. I was also monitoring the Tasmania Fire Service (TFS) website. Already, stories were circulating about homes being destroyed, people

³³ NSP stands for “Nearby Safer Place” and refers to areas designated by the TFS as relatively safer areas to turn to should it be impossible to leave during a bushfire.

³⁴ The Australian Broadcasting Commission (ABC) is a public service broadcaster that has, since 2010, played the role of the official emergency broadcaster Australia-wide, delivering warnings and updates to affected communities.

being evacuated, and other individuals and families being trapped behind the fire front. It was clear a crisis was unfolding.

I had no experience with helping during an emergency. I was anxious to help but was limited by my lack of experience and my immediate situation – stuck at home baby-sitting. I posted a few questions on Facebook through my personal account to my own network of friends and family, and details started to emerge. For example, there was a refuge centre that needed volunteers, people were worried about their pets, people couldn't get hold of friends and family who were in the area, and others were offering donations. I had a strong sense that all this information and goodwill, as well as offers and requests for help, needed to be organised. These were only general thoughts, but they were enough to get me started on creating the *Tassie Fires - We Can Help* (TFWCH) Facebook page.

I set up the Facebook page with the general idea that it could be something of a clearing-house. People could post with requests or problems, and solutions would be found (I hoped). I called my local ABC radio station, and asked if they would put me on air so I could tell listeners about the page. To my surprise the producer connected me with the news presenter immediately, and we had a live discussion about the page and what I was hoping to achieve. It was an early insight into how social media and traditional media might work together in an emergency situation.

Within about a day, the page had attracted almost 21,000 followers. People flocked to get information, ask questions, give support and see what was needed. Updates from police and emergency services were provided through the page, there were posts from various charities about what they were doing and how people could help, while thousands of volunteers shared information. I was on the laptop and telephone for up to 20 hours a day, posting new content every three to four minutes.

This continued for almost a full fortnight. Activity then slowed but continued for months. The page continues to operate today.

One of the stories which helps illustrate the page's role and impact concerns the plight of an oyster hatchery in Dunalley, known as *Cameron's of Tasmania*. The hatchery housed around 60 million baby oysters, also known as oyster spat. About 40 – 45% of the oysters grown in Australia are from spat grown by this particular business. The hatchery also employs 35 people locally. The hatchery only narrowly escaped the flames but on the day immediately following the worst of the fire-front, another crisis emerged. Power had been lost, and therefore the cooling and feeding systems in the hatchery were non-operational. Baby oysters are sensitive to temperature; even slight changes will cause stress and will kill them in a short space of time.

A distraught local oyster farmer associated with Cameron's contacted me. He had already seen people using the social media page and he figured it was his last chance to get some help. On January 6 at 1:23pm I posted a message on his behalf. In the post, I explained what was at stake, what was needed, and how it could all be done logistically. I asked for three generators, and for a number of electricians and electrical engineers to get to the area and assist. The message I posted also included the contact details for the hatchery and the emergency services personnel that would be needed as escorts to ensure people were able to access the area safely, if they were going over land rather than by sea. The following morning, I was able to post the following message from the owner of the hatchery:



Tassie Fires - We Can Help

January 7, 2013 · 🌐

READ THIS FOR SOME ABSOLUTELY AMAZING NEWS

Just speaking to Ben, the owner of Cameron's Oyster Farm. Yesterday I got on to them because they desperately needed some big generators, electricians, and electrical engineers. The word went out here and I rang the ABC too.

Here's what he had to say today:

We have managed to save an estimated 80% of our livestock at one of our sites - we are thrilled about this. 35 jobs in the local community have been SAVED. We have over 200 customers in other areas in Tassie and in South Australia who rely heavily on us to supply livestock - so we have literally saved dozens of families and family businesses in regional Tas and South Australia.

This is all because the word went out and we got generators and sparkies who came out and stayed out for there for hours yesterday.

So an enormous thank you to the Hobart community from Ben, the boss of Cameron's Oysters (third generation oyster farmer)

At present - they don't need anything 😊

This example demonstrates how the page helped connect volunteers with those in need, and to provide rapid assistance. The owners of the hatchery are certain that help would not have arrived in time if they had attempted to go through the official channels – indeed, they had tried, and these channels had proved to be ineffective. Ben Cameron, the owner of the hatchery, summed up his experiences in an interview for an ABC television program *Australian Story* (ABC, 2013):³⁵

Hour by hour our fish were dying... So we stood to lose all of our all of our livestock, around about \$2.5 million worth of stock, around 100 million individual animals. Our oysters could survive 36 to 48 hours out of water. That's not long enough for a bureaucratic institution to make decisions. So realistically it had to be a private, private venture and that's where Mel came in. It was fantastic. And her being able to deal with all the logistics and coordination from her place meant that I can actually get on with saving our livestock. We asked for something, it just arrived... The Government in this was absent. And that's - I don't necessarily think that is a reflection on their unwillingness to be involved. It was their due process, they have to do this, they've got liability issues, when realistically in an emergency situation like we had, we've just got to act. You can't worry about all that sort of stuff or else the economic losses is going to be tremendous. (n.p)

Throughout the bushfire crisis, there were hundreds if not thousands of volunteers connecting and contributing through the page. It attracted significant

³⁵ The ABC filmed a half-hour story on the Administrator and the TFWCH effort for the television show, "Australian Story" (ABC, 2013). This aired in July 2013. The program uses a documentary approach to tell a story, with a narration-free format, and contains interviews and actuality but no interviewer's voices. Subjects may have well-known profiles already, or be unknown to the broader public.

interest from the mainstream media and was featured in television, radio and print coverage.³⁶

The current project

As the initial emergency phase receded, I had more time to reflect on the page and its role during the bushfire crisis. It seemed to offer something unique and unprecedented: an example of how social media could be used as a community tool during crises and emergencies to improve the response and recovery. I sensed that the page ‘filled a gap’ or satisfied a thirst that wasn’t being addressed elsewhere. It seemed to both inform *and* empower, providing answers, solidarity and emotional support. It also had practical value, as the example above with the hatchery illustrates. People were using the page to deliver essential goods and services. In particular, I wondered if this page had actually helped the community to be more resilient.

I also had my doubts – perhaps the page was just a lucky ‘once-off’ event, unlikely to be replicated again? I have been struck by the number of people who have contacted me for advice as they try to set up pages of their own in response to particular emergencies. It’s been frustrating to see many of these attempts fail. Nevertheless, it has been heartening to witness the amount of interest in the page, which has come not only from other volunteers, but also from government authorities, emergency management experts and academics.

³⁶ For example:

6/1/13, “Offers of help flood social media,” *Sunday Tasmanian*, p. A07

8/1/13, “Facebook friends prove we can all help,” *The Mercury*, p. 11

9/1/2013, “Thousands choose their own hotline,” *The Australian*, p. 5

25/3/13, “Tasmanians stand together,” *The Mercury*, p. 1

25/3/13, “State’s fire-fighting spirit recognised,” *The Mercury*, p. 2

19/6/13, “Mel acts to relieve fire’s heat,” *The Mercury*, p. 16

25/9/13, “Bushfire planning wins a big tick,” *The Mercury*, p. 16

5/10/13, “Salute to Tassie’s finest,” *The Mercury*, p. 11

The experience of creating and running the page and sifting through the wide range of responses to it made it clear to me that further research was needed; and it is from this knowledge that the current research was instigated. It is important to note that I was already partway through a Doctorate at the time of the bushfires in 2013. My thesis was exploring wellbeing processes in the workplace; I was examining a number of psychological constructs from the fields of organisational, health and community psychology. When the bushfires occurred and I created TFWCH, this unique opportunity emerged to develop my work by shifting the focus of my research to this case study.

It's a difficult balancing act: studying the very phenomenon I was, and am, a part of. I cannot pretend that I am not invested in the page or that I can easily take the position of an impartial observer. Nevertheless, I do believe it is possible to conduct research from my own subjective position that is both valid and useful. Indeed, given so much research in this area is hampered by a lack of access to this type of data, I feel my position as creator, Administrator and researcher of this page is one of the strengths of this research. The conundrum experienced by naturalistic researchers is well known. It is summarised well by Victor Frankl in his book 'Man's Search for Meaning' which explores his analysis of his experiences in concentration camps during the Second World War:³⁷

To attempt a methodical presentation of the subject is very difficult, as psychology requires a certain scientific detachment. But does a man who makes his observations while he himself is a prisoner possess the necessary detachment? Such detachment is granted to an outsider, but he is too far removed to make any statements of real value. Only the man inside knows. His judgments may not be objective; his evaluations may be out of proportion. This is inevitable. An attempt must be made to avoid personal bias, and that is the real difficulty of a book of this kind. (p. 5)

³⁷ While in no way is the current research project being compared to the work of Frankl, as they are not comparable, his comments on research design are valuable for any research of this nature.

Because of issues of subjectivity and because this is an empirical research project, while a more detailed auto-ethnographic component would be a valuable contribution to the literature (and it is recommended that further research does look at Administrators of emergent groups from an auto-ethnographic perspective), I have purposely avoided auto-ethnographical research in the remainder of this thesis. This is because I understand that it is beyond my capacity to conduct some types of analyses objectively.

Therefore, my research questions are directed elsewhere. I have selected research questions that increase my distance from the data, and minimise my engagement with the areas that I cannot adequately step back from. I do acknowledge and utilise, for example, people's praise of the page in order to look at how people engaged with social media, but do not attempt to analyse it further. In conducting this research I have endeavoured to remain as data-driven and inductive as possible. That being said, my inside knowledge into events is still apparent in this work, as I am able to share useful information relating to the event. For example, in Chapter 5 of this thesis, I am able to note the relevant and informative fact that the state newspaper, The Mercury, posted the TFWCH Facebook page on their website homepage for a number of days in the first week of the disaster. This sort of 'inside information' is usually included as a footnote.

Throughout the remainder of this thesis I write in the third person, which reflects this intention to write objectively, and as it is a useful writing tool in the social sciences.

Rationale and implications

A unique opportunity emerged to examine how an online emergent group operates during a disaster. The lead researcher's involvement in the page and the subsequent external academic and emergency management interest highlighted the importance of researching the TFWCH page. The main rationale for this research is quite simply that there are a number of research gaps in the area of spontaneous volunteering, social media and community resilience. For example, little is known about the inner workings of online emergent groups. Even less is known about the leaders of these groups. How spontaneous volunteers can contribute to community recovery and community resilience is another area that needs empirical research. Researching a case study such as TFWCH therefore provides a way to explore some of these gaps and contribute to the literature.

There are theoretical and practical implications of this research. From a practical perspective, by better understanding how a community forms an online group in response to a disaster, social media platforms and emergent groups can be better harnessed by formal responders and collaborated with, in order to enhance community resilience. From a theoretical perspective, this research can explore how Norris et al.'s (2008) model of community resilience can be reimaged in order to consider the benefits of social media on resilience.

Aims and research questions

This thesis aims to document and examine a case study of an online emergent group – *Tassie Fires - We Can Help* (TFWCH) that formed in response to a crisis event, the 2013 Tasmanian bushfires. Specifically, this thesis aims to explore the potential for online emergent groups to enhance community resilience.

The four research questions central to this thesis are now detailed.

Research Question 1

Does social media influence the ways volunteers can operate, improving their functionality, which in turn can have a positive impact on community resilience?

Research Question 2

What evidence is there that through using social media, an emergent group can contribute to community resilience, specifically as operationalised by Norris et al.'s (2008) models of community resilience? Can emergent groups using social media capitalise on and improve communication and information, economic development, community competence, and social capital (see Figure 2.2), and can they provide resources in a rapid, robust and redundant way (see Figure 2.1)?

Research Question 3

Does looking at Norris et al.'s model of community resilience (2008, see Figure 2.2) through the prism of social media reveal a need to complement the social support elements with psychological first aid? Is there evidence for the suggestion that psychological first aid can be delivered in an emergency context by an emergent online group?

Research Question 4

What are the characteristics of online emergent group leadership and management? How does social media influence the development and manifestation of community leadership and how does leadership, in the social media context,

influence the resources in Norris et al.'s model (2008) of community resilience (see Figure 2.2)?

Methodology and overview of thesis

It could be said that a case study approach was selected for this thesis, but it is more accurate to say that the case study approach selected itself. This is often the protocol with case study research. This is particularly so when there is only a small population of accessible and appropriate cases from which to choose, as expressed by Denzin and Lincoln (2008, p. 129), "Intrinsic casework regularly begins with cases already identified. The doctor, the social worker, and the program evaluator receive their cases; they rarely choose them. The cases are of prominent interest before formal study begins".

Originally this project did not set out to explicitly hypothesise about and establish precisely why this or other emergent groups function effectively. It was not intended to analyse specific theories or hypotheses. Due to the nature of the data collected and the data collection process, as data were gathered opportunistically and at speed after a local disaster event, this thesis is primarily a descriptive case study of an emergent group, the *Tassie Fires - We Can Help* Facebook page that was created during a bushfire crisis³⁸. That being said the data are also interpreted through the lens of a number of different models and theories, as evidence to support those models is examined.

³⁸ It is worth briefly discussing the ethics approval process at this point in the project. As the data was gathered prior to the decision being made to actually conduct research using the data, retrospective ethics approval (Code: H0014624) in the form of a Social Science Human Research Ethics Committee Minimal Risk Application was granted from the Human Research Ethics Committee (Tasmania) Network. The researchers would like to thank the Committee for their understanding and support during this process, as this was an unusual project that required careful consideration.

It is critical to examine the role of the author with this research. Without being aware of it at the time, on reflection it is understood that the student researcher filled the role of *research-volunteer* (Allahyari, 2000). This is similar to Gardner (2013) in his participation in disaster relief centres post Hurricanes Katrina and Ike. Gardner volunteered during the disaster, but also took notes and researched the behaviour of his fellow volunteers. Similarly, Starbird and Palen (2013) conducted a study whereby Starbird was a *participant observer*, as she was involved as both a digital volunteer with not-for-profit organisation Humanity Road during the 2010 Haitian earthquake but also as a researcher.

The author can also be conceived as an *active participant* (Adler & Adler, 1987), or as using a *participatory action research strategy*. Action research involves the researcher making an active contribution to the community while they are undertaking research simultaneously (McIntyre, 2008). As expressed by Moritsugu, Vera, Wong and Duffy (2014): “If you want to know something about a community, ask someone who is a part of that community” (p. 51).

While there are critics of this form of research, it is argued that it offers unique insights that would not otherwise be available (Yates & Paquette, 2011). Gardner (2013) states that this is a useful methodology, because the researcher is able to “serve both a functional role in the setting while preserving adequate space for self-reflection” (p. 243). Thus valuable insights can be explored, but the need to minimise bias is critical.

As explored in this thesis, steps were taken in an attempt to minimise bias in this research. The author was conscious of the potential for bias to be an issue, and for the potential for this project to be subjective and not analytical. Therefore this project was designed around four research questions that enabled objectivity in the

analysis. A number of areas were not explored. For example, this thesis does not offer an interpretation or analysis of how the Administrator felt during the crisis or what she was experiencing. While valuable, this would require a different analysis strategy and different premises for the research. For this project, it has been intended to remain analytical and data-driven, using only the data on hand.

An additional step to avoid bias was to avoid overexposure to the literature prior to analysis. While a prior engagement with the literature had occurred during the period of research prior to the bushfire disaster occurring, a number of key elements had not been researched in detail, such as resilience in times of crisis and psychological first aid. The author engaged little with these research fields before conducting the analysis in order to encourage objectivity about what may have been the outcomes of the page.

Table 2 in the Appendix details the time periods of this research. Data were gathered in three ways. Social media statistics for the TFWCH Facebook page were obtained from Locowise, a social media analyst company from the United Kingdom.³⁹ This was in order to explore basic demographic details about the users of the page, and metrics around how engaged and active the audience were on TFWCH. This part of the analysis was in order to begin to get an initial understanding of how popular the page was, who was using it, and how far it was reaching into the community, in order to start to build up an understanding of the profile of this online emergent group. These results are presented in the following chapter, Chapter 5.

The second data set comprised the 2,443 posts that were created by the Administrator of TFWCH in the first year of the page's life. Uploading a full archive

³⁹ www.locowise.com

of the page's activity into NVivo,⁴⁰ a software platform for analysing unstructured data, using the NCapture function, enabled access to this data. This data was extracted in order to thematically analyse all of the posts made by the Administrator of the page over a one-year period, to explore aspects around the roles, functions and style of the page and the Administrator herself. This analysis was an attempt to categorise all the posts to get a better understanding of what the TFWCH page was focusing on. The results of this analysis are presented in Chapter 6.

The third data set comprised three questionnaires that were completed by users of the Facebook page after the emergency. The questionnaires were directed at three different sub-sets of the TFWCH population: individual volunteers who had decided to help in some way, organisations and businesses who had decided to help in some way, and bushfire-affected individuals who had come to the page for help.

The questionnaires contained quantitative and qualitative items designed to explore issues around respondents' usage of social media and traditional media during the disaster, and to explore their volunteering behaviours during the period. The questionnaires also explored the reasons why bushfire-affected individuals were coming to the page, and what they were using it for. The quantitative results are presented in Chapter 7; the qualitative results in Chapter 8. In Chapter 9, the four research questions are discussed, and Chapter 10 presents the conclusions.

The next chapter, Chapter 5, is the first data chapter of this thesis.

⁴⁰ www.qsrinternational.com/products_nvivo.aspx

4.1. Chapter 5 – Analysis of Facebook Statistics

Introduction

This chapter provides demographic information about the fans and users of the TFWCH page. This chapter is a descriptive analysis of the data supplied by Facebook, accessed through the company Locowise, relating to who was using the page, such as: their age, gender, location, and if they were accessing the page from a mobile or desktop device. It also explores other metrics that give an indication of community engagement with the page, such as how many users were reached and how users were engaging with the content. These data are presented because they give an initial overview of the fans and activity on the page, thus providing context for the upcoming data chapters. Thus this chapter is more descriptive than analytical.

Method

Research design

This analysis was part of a retrospective case study.

Participants

The participants in this study are the individuals who used the TFWCH Facebook page during January 2013 to January 2014, and whose usage of the page could therefore be analysed via aggregated engagement statistics,⁴¹ accessed via Locowise, which is described below.

⁴¹ Facebook Insights also provides information about how a page is performing, such as how people are discovering a page and how they are responding to posts. Facebook's Page Insights are available to the Administrators of pages. Locowise was selected as it delivers more comprehensive metrics in a more user-friendly platform.

Materials

No new data had to be gathered as such; the data were simply downloaded and organised. Locowise was used to download the statistical data that had been created during the life of the TFWCH Facebook page.

Locowise is a commercial provider of analytics tools and social media management for a range of platforms such as Facebook, Twitter and Instagram. It is a relatively new company based in the United Kingdom, and it is a useful software tool for assessing and accessing Facebook analytics. Locowise software enables the user to download all previous posts and comments from a social networking site source into a database, and then examine key metrics and demographic data.

Procedure

Locowise was informed about the current research project, and on request, downloaded the TFWCH Facebook page archives.⁴² After initial technical difficulties with accessing data from the first three days of the TFWCH Facebook page's life, the full data set from the first year of TFWCH was made available. In addition to exploring Facebook's definitions and utility of the metrics available, Thinktank Social⁴³ and Locowise advised on the most meaningful statistics worthy of investigation. Only the most relevant metrics are explored.⁴⁴

⁴² Historical archives are not usually available for commercial licensees of the product. While Facebook data is publically available, being able to utilise Locowise rather than the less sophisticated Facebook Insights function was preferable. The authors are grateful to Locowise for their support.

⁴³ Thinktank Social is an Australian social media marketing and analysis agency, www.thinktanksocial.com.au

⁴⁴ Some metrics were excluded from this analysis that would be useful for other purposes. For example, many people came to TFWCH from *within* Facebook – a metric known as 'page like sources'. These are not included here in this thesis, but are defined in Table 9 in Appendix C; and Table 10 lists the results for this metric. This metric is useful for analysing which parts of Facebook most successfully draw people to a page. Emergency management and community groups could capitalise on this information in order to have a greater reach.

Data analysis

Disasters have distinct timelines. There is usually an initial flurry of activity by formal and informal responders that occurs as the response takes place, and then activity slows as the recovery continues. This timeline can be tracked by examining social media archives. Thus the statistics of the TFWCH page were analysed in separate blocks of time, presented in Table 5.1 below. January was the busiest month and it made sense to separate it into four time blocks of one week apiece.

Table 4.1.1. TFWCH: The nine key time periods under investigation

Time period	Description
Week 1	January 4 – January 10, 2013
Week 2	January 11 – January 17, 2013
Week 3	January 18 – January 24, 2013
Week 4	January 25 – January 31, 2013
First Quarter (1 st Qtr.)	January, February, March 2013
Second Quarter (2 nd Qtr.)	April, May, June 2013
Third Quarter (3 rd Qtr.)	July, August, September 2013
Fourth Quarter (4 th Qtr.)	October, November, December 2013
Year 1	January 4, 2013 – January 3, 2014

A detailed description of the basic Facebook terms appears in the Appendix (Table 1). Table 5.2 below describes the different metrics that are explored in this chapter, as well as categorising how each statistic was calculated.⁴⁵

⁴⁵ Although it is not critical, it is useful to briefly reflect on how Locowise calculates each of the metrics, in order to be aware of the types of statistical analyses that can and cannot be completed with this dataset. A statistic such as “daily page stories” is an average of the number of stories shared on all the days in that particular time period. A statistic such as “sex of fans sharing stories” is an accrual or accumulation of the number of females who have shared stories, and the number of males who have shared stories, in that particular time period. A statistic such as “total page likes” is simply a measure of the number ‘likes’ on the final day of the time period under investigation.

Table 4.1.2. Facebook term glossary: 22 key definitions

Variable	Description	Statistic calculation
Total page likes	Number of fans currently following page (people who have clicked ‘like’ on the page)	Final
Ratio of gained page likes to lost page likes	Ratio of new fans to the page compared to fans who have been lost	Average
Average daily gain of page likes	Average number of new fans	Average
Average daily loss of page likes	Average number of lost fans (people who have clicked ‘unlike’ on the page)	Average
Total number of page unlikes	Total number of fans who have left the page	Accrual
Page like sources	Trail from where fan first clicked on the page: from within Facebook	Accrual
Referring sources	Trail from where fan first clicked on the page: from outside of Facebook	Accrual
Sex of fans	Sex of people who had liked the page	Final
Sex of fans sharing stories	Sex of people who were actively sharing stories from the page (commenting, sharing and so on)	Accrual
Age group of fans	Age of fans	Final
Most common age group sharing stories	Most common age group of fans actively sharing stories from the page (commenting, sharing, and so on)	Average

Table 5.2. Facebook term glossary: 22 key definitions (continued)

Variable	Description	Statistic calculation
Country of fans	Where fans originated from	Final
Total page impressions	The total number of impressions (or images) ‘seen’ of any content associated with the TFWCH Facebook page. This represents the number of times any content at all relating to the TFWCH page appeared on somebody’s newsfeed or ticker	Accrual
Mean daily page impressions	The same metric as total page impressions but is a daily average rather than a cumulative total	Average
Total number of people who had viewed any content	The total number of people who have seen any content associated with the page (that is, any impressions). Therefore this statistic informs of how many individual, unique people had ‘seen’ something from the TFWCH page – remembering impressions do not guarantee that the person has definitely viewed the post	Accrual
Mean number of people seeing any content daily	The same metric as total number of people who had viewed content, except that it is the daily average rather than the cumulative total	Average
Total page engagements	The total number of times people engaged with the TFWCH page by clicking on any of the content, but <i>without</i> generating a story	Accrual
Mean daily page engagements	This metric is the same as total page engagements described above, but it represents the average number of engagements per day rather than a cumulative total	Average

Table 5.2. Facebook term glossary: 22 key definitions (continued)

Variable	Description	Statistic calculation
Mean number of people engaging daily	The daily average number of people who engaged with the page by clicking on any of the content, but without generating a story. This statistic is similar to mean daily page engagements just above, but it informs about how many different, unique people have clicked on content to do with the page	Average
Total page stories	The total number of stories created about the page. A story is generated when one of the following happens: a person likes a post, shares a post, comments on a post, likes the page itself, mentions the page within their own posts, or tags the page in a photo	Accrual
Mean daily page stories	The average daily number of stories (likes, shares, comments, and so on.) created about the TFWCH page. Therefore this metric is the same as total page stories, but presents the daily average number of stories generated, rather than the overall, cumulative total	Average
Mean daily page stories by fans of the page	The average daily number of stories being shared by fans of the page. A fan is someone who has liked the page and is following it	Average

Results

The results of this chapter are descriptive, which in and of itself is a valuable contribution to the literature, as little is known about the characteristics and reach of online emergent groups. Why these results are pertinent to this thesis and therefore included is explored briefly in the Discussion section of this chapter. The results are then considered in Chapter 9 in more detail in light of the four research questions.

Page likes

The following table, Table 5.3, presents statistics relating to the number of fans being attracted to and lost from TFWCH over the nine time periods under investigation.

Table 4.1.3. Locowise insights: TFWCH fan gains, losses, and initial access to the page

Variable	Time Period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
Total page likes	20,860	20,564	20,413	20,317	20,089	19,877	20,311	20,243	20,243
Ratio of gained page likes to lost page likes	5.07:1	1.06:1	0.59:1	0.53:1	3.32:1	0.53:1	3.44:1	1.06:1	3.03:1
Average daily gain of page likes	2,212.67	143.83	31.83	14.50	171.93	2.81	7.17	1.16	43.76
Average daily loss of page likes	436.83	135.33	54.00	27.33	51.73	5.32	2.08	1.09	14.45
Total number of page unlikes	632	812	324	164	4,449	479	190	100	5,218
Initial access to page: Mobile device	8,350	413	84	26	9,013	54	148	20	9,235
Initial access to page: Non-mobile device	4,940	447	106	60	5,578	196	502	84	6,560

The results show that the page attracted a large amount of *likes* in the first week of operation, and that the first week was the busiest period for new likes, with a ratio of gained to lost likes in excess of 5:1. Over the four quarters of the year, the page likes were relatively stable; although the first few weeks and in particular the first week of the page's life were the most popular in regards to likes from fans. The busiest period for fans *unliking* the page was during the first quarter of the page's operation. In regards to the initial access to the page, mobile devices were the key medium for accessing the page in the first week of the page's life. This then reversed by the second week, and remained reversed. The results for the full year one period are skewed due to the first week.

A number of other websites had referred users to the TFWCH Facebook page by providing a link to TFWCH on their own sites. Table 5.4 below lists and briefly describes the most popular different websites that referred people to TFWCH. In Table 5.5, for each time period under investigation, each of these referring sources is then listed and the results are presented. Table 5.5 also includes two other metrics: total number of referrals and total number of referring sources. *Total number of referrals* refers to the total number of external referrals that had been driven to the page and *total number of referring sources* refers to the total number of external sources linking to or mentioning the page.

Table 4.1.4. Locowise insights: External websites referring users to TFWCH

Website URL	Description	Website URL	Description
www.themercury.com.au	Tasmanian newspaper website	www.tfwch.websmistresshq.com.au	Temporary TFWCH website
www.google.com.au	Search engine – in Australia	www.lifeonplanetbaby.com	Unknown, page unavailable
www.forum.pixode.net	Facebook Forum for Pages application	www.fullersbookshop.com.au	Tasmanian book shop website
www.google.com	Search engine	www.sensis.com.au	Online buying/selling website
www.news.com.au	Online news website	www.hightonvet.com.au	Vet clinic in Victoria
www.community.ebay.com.au	EBay community page	www.ask.com	Search engine
www.tightlinestasmania.com.au	Tasmanian fishing website	www.google.es	Search engine – in Spain
www.t.co	Unknown, page unavailable	www.ssl.bing.com	Search engine
www.google.co.uk	Search engine – in the United Kingdom	www.clintonpower.com.au	Relationship counselling clinic NSW
www.mumbrella.com.au	Media/marketing website	www.bookendtrust.com	NFP education initiative, TAS
www.au.news.yahoo.com	Online news website	www.google.com.pk	Search engine – in Pakistan
www.bing.com	Search engine	www.meganaiemma.edublogs.org	Personal education blog
www.storify.com	Online news/social media service	www.google.ca	Search engine – in Canada
www.ultra106five.com	Tasmanian radio station website	www.google.com.my	Search engine – in Malaysia
www.australianhorserescue.com	Australian horse welfare website	www.google.com.br	Search engine – in Brazil
www.google.com.ph	Search engine – in the Philippines	www.google.pt	Search engine – in Portugal
www.french.frontierservices.org	Unknown, page unavailable	www.google.it	Search engine – in Italy
www.google.com.sg	Search engine – in Singapore	www.melanieirons.com	Personal website of Admin
www.google.so	Search engine – in Somalia	www.tassiefireswecanhelp.com	TFWCH website
www.livinglovinghobartblogspot.com.au	Personal blog on Hobart	www.webmistresshq.com.au	Temporary TFWCH website as being built

Table 4.1.5. Locowise insights: Top 10 websites referring users to TFWCH

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
Total number of referrals	2,293	594	63	34	3,488	217	279	101	4,085
Total number of referring sources	144	61	28	19	528	120	140	70	858
Referring source									
www.themercury.com.au	877	337	2	3	1,222	-	7	-	1229
www.google.com.au	528	165	36	16	861	53	130	55	1099
www.forum.pixode.net	246	-	-	-	246	-	-	-	246
www.google.com	32	10	2	-	142	19	19	17	197
www.news.com.au	82	-	-	-	87	-	-	-	87
www.community.ebay.com.au	63	11	-	-	74	-	-	-	74
www.tightlinestasmania.com.au	70	-	-	-	71	-	-	-	71
www.t.co	59	-	-	-	66	-	-	-	66
www.google.co.uk	-	-	1	-	46	4	3	-	53
www.mumbrella.com.au	-	11	-	-	-	-	-	-	-
www.au.news.yahoo.com	34	-	5	-	-	-	-	-	-
www.bing.com	-	15	5	5	43	3	4	-	-
www.ssl.bing.com	-	-	-	-	-	-	18	8	-
www.tassiefireswecanhelp.com	-	-	-	-	-	26	38	7	71
www.webmistresshq.com.au	-	-	-	-	-	4	-	-	-
www.tfwch.websmistresshq.com.au	-	-	-	-	-	43	-	-	-
www.lifeonplanetbaby.com	28	-	-	3	-	-	-	-	-
www.fullersbookshop.com.au	-	6	2	2	-	-	-	-	-

Table 5.5. Locowise insights: Top 10 websites referring users to TFWCH (continued)

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
www.sensis.com.au	-	4	-	-	-	-	-	-	-
www.hightonvet.com.au	-	3	-	-	-	-	-	-	-
www.ask.com	-	3	-	-	-	-	-	-	-
www.google.es	-	-	1	-	-	-	-	-	-
www.clintonpower.com.au	-	-	1	-	-	-	-	-	-
www.bookendtrust.com	-	-	1	-	-	-	-	-	-
www.google.com.pk	-	-	-	1	-	-	-	-	-
www.meganaiemma.edublogs.org	-	-	-	1	-	-	-	-	-
www.storify.com	-	-	-	1	-	-	-	-	-
www.ultra106five.com	-	-	-	1	-	-	-	-	-
www.australianhorserescue.com	-	-	-	1	-	-	-	-	-
www.google.com.ph	-	-	-	-	-	5	-	1	-
www.google.ca	-	-	-	-	-	4	-	-	-
www.google.com.my	-	-	-	-	-	3	-	-	-
www.google.com.br	-	-	-	-	-	-	4	-	-
www.google.pt	-	-	-	-	-	-	3	-	-
www.french.frontierservices.org	-	-	-	-	-	-	3	-	-
www.livinglovinghobartblogspot.com.au	-	-	-	-	-	-	-	2	-
www.google.it	-	-	-	-	-	-	-	2	-
www.google.com.sg	-	-	-	-	-	-	-	1	-
www.melanieirons.com	-	-	-	-	-	-	-	1	-
www.google.so	-	-	-	-	-	-	-	1	-

As can be seen in Table 5.5, a number of websites had links to the TFWCH Facebook page: 858 in the first year, and together these were responsible for 4,085 people arriving at the page. The largest referring website was *The Mercury* newspaper homepage, the state's leading local newspaper and one of the mainstream media sources most closely linked to the events.⁴⁶

The Australian version of the Google search engine was the second largest referrer, suggesting a number of fans had searched for the Facebook page through Google, having perhaps heard about it elsewhere first, or perhaps they were simply conducting a general search for information on Google and were led to this page. The third most influential referrer was only operational for the first week of the fires. This referrer was an unidentifiable discussion group built on Facebook forums, but this forum can no longer be accessed, and seems to have closed down sometime in the first week of the fires.

The number of referrals drops over time, presumably as information and stories about the bushfires dropped out of the news cycle and out of the content on other external websites. There was a jump in referrals in the 3rd quarter of the year, which is attributed to the airing of the ABC Australian Story on the topic of the Administrator of the TFWCH page and the TFWCH story. Interestingly there were still 70 referrals to the page as late as during the fourth quarter of the year.

Page users

The next set of results examines the sex and age breakdown of the fans and most engaged users of the page. Table 5.6 below presents the results in frequencies.

⁴⁶ *The Mercury* had posted the TFWCH Facebook page as their banner for a number of days in the first week of the emergency, as well as posting a number of stories about TFWCH, with a link to the page embedded. It is unknown what stimulated the decision to promote the page. It is argued that this gave the online emergent group some credibility, legitimacy and promotion.

Differentiating between people who are simply *fans* of a page (people who like a page) and people who *share stories* is important because fans can be following a page, but be relatively inactive, while those who actively generate stories are more engaged.

As described earlier,⁴⁷ for the sex and age statistics, the results represent neither an average nor an accumulated score. They represent how many fans were of each sex and each age on the final day of each time period under investigation. Thus Table 5.7 and Table 5.8 below present the average sex and age breakdowns of the fans of the page. In order to do this, three time periods (the final day of Week 1, the final day of the first quarter, and the final day of the year) are averaged in percentages.

⁴⁷ See this chapter, Data Analysis

Table 4.1.6. Locowise insights: TFWCH fan base by sex and age across all time periods (frequencies)

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
	Frequency								
The number of male fans	4,083	4,048	4,027	4,012	4,000	3,999	4,295	4,210	4,210
The number of female fans	16,562	16,301	16,173	16,092	15,888	15,684	15,918	15,897	15,897
The number of males sharing stories	11,020	2,683	884	345	16,096	386	443	62	16,987
The number of females sharing stories	53,731	17,788	5,893	2,189	87,253	2,540	1,813	266	91,872
Male fans 13 – 17yo	416	408	409	402	398	371	350	324	324
Female fans 13 – 17yo	947	939	927	921	883	822	790	724	724
All fans 13 – 17yo	1,363	1,347	1,336	1,323	1,281	1,193	1,140	1,048	1,048
Male fans 18 – 24yo	891	878	874	872	871	873	915	915	915
Female fans 18 – 24yo	2,963	2,898	2,869	2,851	2,759	2,683	2,649	2,581	2,581
All fans 18 – 24yo	3,854	3,776	3,743	3,723	3,630	3,556	3,564	3,496	3,496
Male fan 25 – 34yo	1,237	1,217	1,199	1,191	1,182	1,186	1,212	1,211	1,211
Female fans 25 – 34yo	5,398	5,271	5,209	5,171	5,125	5,039	5,038	5,045	5,045
All fans 25 – 34yo	6,635	6,488	6,408	6,362	6,307	6,225	6,250	6,256	6,256

Table 5.6. Locowise insights: TFWCH fan base by sex and age across all time periods (frequencies)(continued)

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
	Frequency								
Male fans 34 – 44yo	855	840	836	834	838	829	892	906	906
Female fans 34 – 44yo	4,079	4,016	3,980	3,963	3,887	3,874	3,977	3,989	3,989
All fans 34 – 44yo	4,934	4,856	4,816	4,797	4,725	4,703	4,869	4,895	4,895
Male fans 45 – 54yo	415	425	428	427	418	443	491	507	507
Female fans 45 – 54yo	2,099	2,091	2,094	2,093	2,115	2,218	2,219	2,267	2,267
All fans 45 – 54yo	2,514	2,516	2,522	2,520	2,533	2,661	2,710	2,774	2,774
Male fans 55 – 64yo	176	182	185	190	192	197	220	223	223
Female fans 55 – 64yo	802	806	812	812	835	837	914	944	944
All fans 55 – 64yo	978	988	997	1,002	1,027	1,034	1,134	1,167	1,167
Male fans 65yo +	93	98	96	96	101	100	115	124	124
Female fans 65yo +	274	280	282	281	284	301	331	347	347
All fans 65yo+	367	378	378	377	385	401	446	471	471

Table 5.6. Locowise insights: TFWCH fan base by sex and age across all time periods (frequencies)(continued)

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
	Age group in years of age								
Age breakdown for sharing stories: most common age group	25 – 34	35 – 44	35 – 44	35 – 44	35 – 44	35 – 44	35 – 44	35 – 44	35 – 44
Fans of the page: most common age group	25 – 34	25 – 34	25 – 34	25 – 34	25 – 34	25 – 34	25 – 34	25 – 34	25 – 34

Table 4.1.7. Locowise insights: TFWCH fan base by sex and age across three time periods (percentages)

Variable	Percentage at end of Week 1 (January 11, 2013)		Percentage at end of 1 st quarter (March 31, 2013)		Percentage at end of 1 st year (January 3, 2014)		Average over the 3 time periods	
	Males	Females	Males	Females	Males	Females	Males	Females
Fans	19.8	80.2	20.1	79.9	20.9	79.1	20.3	79.7
Fans sharing stories	17.0	83.0	15.6	84.4	15.6	84.4	16.1	83.9
Fans 13 – 17yo	30.5	69.5	31.1	68.9	30.9	69.1	30.8	69.2
Fans 18 – 24yo	23.1	76.9	24.0	76.0	26.2	73.8	24.4	75.6
Fans 25 – 34yo	18.6	81.4	18.7	81.3	19.4	80.6	18.9	81.1
Fans 34 – 44yo	17.3	82.7	17.7	82.3	18.5	81.5	17.8	82.2
Fans 45 – 54yo	16.5	83.5	16.5	83.5	18.3	81.7	17.1	82.9
Fans 55 – 64yo	18.0	82.0	18.7	81.3	19.1	80.9	18.6	81.4
Fans 65yo +	25.3	74.7	26.2	73.8	26.3	73.7	25.9	74.1

Table 4.1.8. Locowise insights: Facebook fan base age across three time periods (percentages)

Age brackets	Percentage of whole fan base			
	1 st week	1 st quarter	1 st year	Average over the 3 time periods
All fans 13 – 17yo	6.6	6.4	5.2	6.1
All fans 18 – 24yo	18.7	18.3	17.4	18.1
All fan 25 – 34yo	32.1	31.7	31.1	31.6
All fans 35 – 44yo	23.9	23.8	24.3	24.0
All fans 45 – 54yo	12.2	12.7	13.8	12.9
All fans 55 – 64yo	4.7	5.2	5.8	5.2
All fans 65+	1.8	1.9	2.3	2.0

The most obvious finding is that the majority of the fans were female. At the one-year mark, the average sex breakdown was 20.3% male and 79.7% female. This gap remained consistent across all time periods, although it regressed marginally towards the mean as time moved forward. Females were substantially more likely to be sharing stories than males. At the one-year mark, 83.9% of the stories being shared were generated by female fans.

About a third of all the fans of the page across the three time periods were 25 to 34 years old, closely followed by 35 to 44 year olds (about a quarter of the group), 18 to 24 year olds (about a fifth of the group) and 45 to 54 year olds (just over 10% of the group). Those under the age of 17 and those above the age of 55 were the least represented.

There were some differences depending on age bracket for sex. Much younger and much older males were more likely than males in the age bracket of 25 to 64 to be fans of the page. Conversely, females between the ages of 25 to 64 were more likely to be on the page than their younger or older counterparts.

The next data (Table 5.9) explore the location of the users of the page.⁴⁸

Table 4.1.9. Locowise insights: Fan base by country of location

Rank	Country/State	Year 1	Rank	Country/State	Year 1
1	Australia	19,657	4	New Zealand	53
	Hobart, Tasmania	9,048	5	India	16
	Launceston, Tasmania	1,697	6	Canada	15
	Melbourne, Victoria	1,142	7	Germany	12
	Sydney, NSW	441	8	Italy	11
	Devonport, Tasmania	438	9	Netherlands	10
2	United Kingdom	125	10	Japan	9
3	United States	117			

The vast majority of fans came from Australia. Of those fans, almost half were located in Hobart, Tasmania, approximately 10% came from Launceston (the second largest city in Tasmania), 6% came from Melbourne (the second biggest city in Australia), and 4% came from Sydney (the largest city in Australia), or Devonport (a smaller city in Tasmania). This means that more than a third of the rest of the Australian users were spread out all over Australia. The United Kingdom, United States of America and New Zealand were the next most represented countries.⁴⁹

Page usage

The following table, Table 5.10 explores metrics concerning the usage of the page.⁵⁰

⁴⁸ Initially each of the nine time periods were analysed in detail. However, close examination of the final results table revealed that each time period was similar, thus only the figures for the time period of Year 1 are presented in Table 5.9.

⁴⁹ This will not be explored further in this thesis, but this finding makes sense, as these countries have close connections with Australia for a number of economic, cultural and historical reasons.

⁵⁰ Although recapped briefly below, to refresh on the definitions of each metric, refer to the glossary in Table 5.2 of this chapter, or the more detailed glossary in Table 1 of the Appendix.

Table 4.1.10. Locowise insights: TFWCH audience reach and engagement

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
Total page impressions	20,053,413	6,529,031	2,186,810	799,881	32,804,173	1,368,230	534,133	130,075	34,836,611
Mean daily page impressions	2,864,773	932,719	312,401	114,269	377,059	15,035	5,806	1,414	96,234
Total number of people who had viewed any content	1,304,672	293,994	126,340	77,604	2,247,600	359,582	169,759	49,512	2,826,273
Mean number of people seeing any content daily	186,382	41,999	18,049	11,086	25,834	3,951	1,843	538	7,807
Total page engagements	1,059,580	256,356	69,328	24,327	1,509,621	40,686	18,524	3,840	1,572,671
Mean daily page engagements	151,369	36,623	9,904	3,475	17,352	447	201	42	4,344
Mean number of people engaging daily	26,710	6,533	2,601	1,140	3,433	266	120	24	928
Total page stories	204,747	52,186	14,677	4,884	292,155	5,035	3,621	835	301,646
Mean daily page stories	29,250	7,455	2,097	698	3,358	55	39	9	833
Mean daily page stories by fans of the page	10,051	3,146	1,063	412	1,296	43	30	7	332

Total number of impressions is a metric for how far and wide any posts related to TFWCH appeared in people's newsfeeds.⁵¹ The total number of page impressions for the first year of the page's life was almost 35 million. Almost 60% of all the page impressions for TFWCH occurred in the first week of the page's life, and almost 95% of all impressions occurred in the first quarter of the page's life. Impressions reduced as each quarter wore on and the page was less active, as would be expected.⁵²

Total number of people who had viewed any content informs of how many individual, unique people had 'seen' something from TFWCH. That is to say, content had appeared on their newsfeeds or timelines.⁵³ Almost three million unique people 'saw' content from the page by the end of the first year. Almost half of all the individuals who had seen content from TFWCH had their first engagement with the page by the end of the first week, and 80% had had theirs by the end of the first quarter.

Total page engagements refers to the total number of times people engaged with the TFWCH page by clicking on any of the content.⁵⁴ It is a considerably more reliable indicator of engagement than total page impressions, as it indicates that users had actively clicked on a post to seek more information, and had therefore had at least some level of deeper engagement with the content. Of the one and a half

⁵¹ It is important to note when interpreting statistics relating to impressions that impressions are no guarantee of real engagement. The user may have scrolled down the newsfeed straight past a post; left their computer for a moment while Facebook was still open; or the mention of a post appeared in their ticker, but other news continued to arrive so that a particular post was no longer visible before the user had a chance to look at their ticker. Thus it is a useful and interesting overall metric, but not as reliable and informative as other metrics, as it merely represents potential exposure of content.

⁵² While presented in Table 5.10, it is not meaningful to explore the average scores for some of these metrics for some of the time periods (particularly the Year 1 time period), as this data set represents a right-tailed, non-normal distribution.

⁵³ As per the first footnote in this section, it cannot be established whether these users had actually engaged with this content or not.

⁵⁴ Clicking on content does not include generating a story: that is, without creating a comment, like or share.

million total page engagements, nearly 70% had happened in the first week, and 96% had happened by the end of the first quarter.

The most important metric to measure engagement is *page stories*, as it indicates true engagement, and the propagation of information through people's individual networks.⁵⁵ Over the first year of the page's life, there were more than 300,000 page stories. Page stories are generated when one of the following happens: a person likes a post, shares a post, comments on a post, likes the TFWCH page itself, mentions the page within their own posts, or tags the page in a photo. Of all the page stories generated in the first year, nearly 70% were created in the first week of the page's life, and 97% were created in the first three months.

Trending words

Locowise provides visual maps of the words that are trending.⁵⁶ The size of each word reflects the frequency with which it appeared during that particular time period. It is beyond the scope of this study to examine the comments and conversations that were happening on the page, but these aggregated results have been included to give a brief insight into commonly occurring words and topics. The results are presented below in Figures 5.1 through 5.9.

⁵⁵ This metric is an even better indicator of engagement than total page engagements, as it identifies people who have not only clicked on content, but who have become even more involved by, for example, making a comment, or believing a post is worth other people seeing, and therefore sharing it with their own network.

⁵⁶ Trending words are those words being used the most regularly by users of the page. The trending word maps contain the words most commonly appearing in the comments to the Administrator's posts on the main page, not within the Administrator's posts. Thus it is a metric of what the crowd is talking about, not the Administrator. These trending word clouds provide a visual representation of the common words being utilised on the page, and they are included here in place of a word frequency chart that could be created in NVivo, as they are more visually engaging.



Figure 4.1.1. Locowise insights: Trending words in Week 1



Figure 4.1.2. Locowise insights: Trending words in Week 2



Figure 4.1.3. Locowise insights: Trending words in Week 3

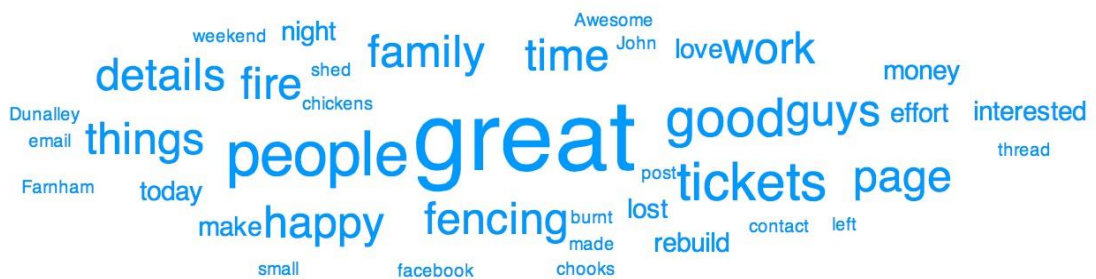


Figure 4.1.4. Locowise insights: Trending words in Week 4



Figure 4.1.5. Locowise insights: Trending words in the first quarter

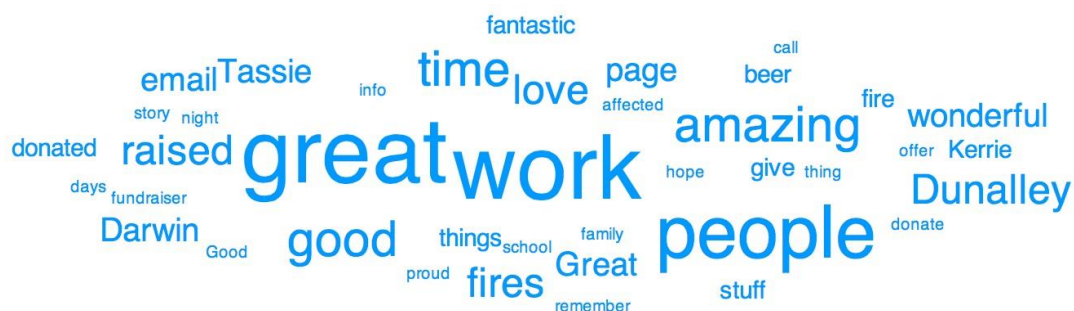


Figure 4.1.6. Locowise insights: Trending words in the second quarter

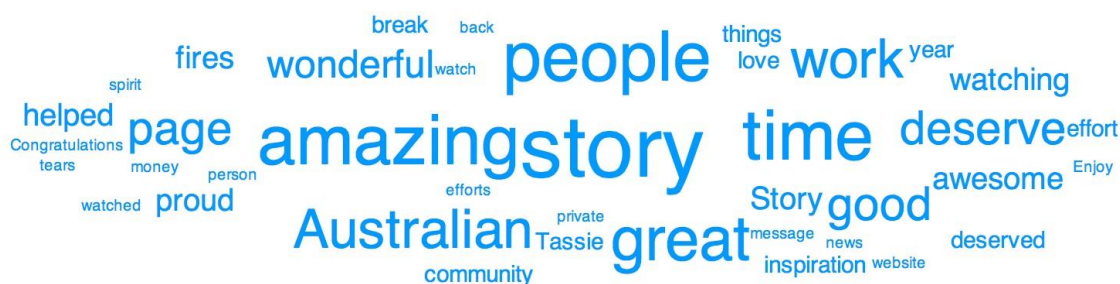


Figure 4.1.7. Locowise insights: Trending words in the third quarter

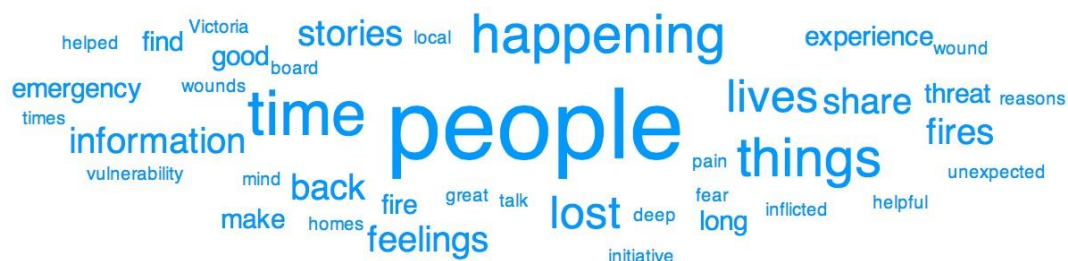


Figure 4.1.8. Locowise insights: Trending words in the fourth quarter

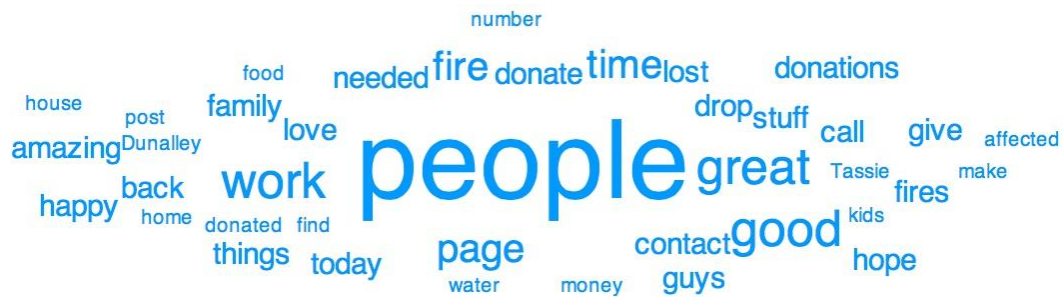


Figure 4.1.9. Locowise insights: Trending words in the first year

These trending word clouds show that the word ‘people’ was the common focus of comments throughout the first year of the page’s life. In Week 1, much of the commentary centred around goods, donating, donations, work, what was needed, and dropping items off. In Week 2 a number of positive adjectives become prominent, such as ‘good’ and ‘great’, as well as references to family and love. In Week 3, the words ‘fire’ and ‘fires’ become prominent for the first time, as well as the word ‘lost’. In Week 4, the range of topics changes again, and common words include family, good, tickets, fencing, happy, work, and page. Interestingly in Week 4, the most commonly used word changes from ‘people’ to ‘great’. Overall, when examining the full year’s worth of comments (Figure 5.9), the most prominent words appearing are people, work, page, good, great, fire and time. A more comprehensive analysis into the changing nature of comments would give valuable insight into how responses and recoveries evolve.

Administrator commitment

The final results for this chapter explore the level of activity on TFWCH by the Administrator. The data are calculated from each post’s time stamp in NVivo; the content of the posts themselves; and recollection by the Administrator. Table

5.11 presents the results for the nine time periods under investigation, and then the first 14 days of the page's life explored in more detail in Table 5.12.

Table 4.1.11. Administrator activity: All time periods

Time period	Number of posts	Hours online	Commitment to page
Week 1	1,327	94hr32min	Constant
Week 2	457	80hr28min	Almost constant
Week 3	179	Varied	Intermittent/varied
Week 4	59	Varied	Intermittent/varied
First Quarter	2,283	Varied	Intermittent/varied
Second Quarter	106	Varied	Intermittent/varied
Third Quarter	39	Varied	Intermittent/varied
Fourth Quarter	15	Varied	Intermittent/varied
Year 1	2,443	Varied	Intermittent/varied

Table 4.1.12. Administrator activity: January

Date	Number of Posts	Time on the Page by Administrator (Duration)	Notes
4.1.2013	85	10:14pm – 2:25am (4hr11min)	Created: 10:14pm
5.1.2013	163	7:05am – 11:25pm (12hr05min)	Absent: 1pm – 5:15pm
6.2.2013	227	8:28am – 12:03am (15hr35min)	Constant
7.1.2013	244	7:37am – 12:10am (16hr33min)	Constant
8.1.2013	251	7:35am – 11:10pm (15hr25min)	Constant
9.1.2013	214	7:42am – 10:44pm (15hr03min)	Constant
10.1.2013	143	7:15am – 10:55pm (15hr40min)	Constant
11.1.2013	123	8:12am – 11:03pm (15hr51min)	Constant
12.1.2013	67	11:36am – 10:04pm (10hr28min)	Absent before: 11:36am
13.1.2013	57	7:12am – 10:03pm (14hr51min)	Constant
14.1.2013	61	8:03am – 9:47pm (13hr44min)	Constant
15.1.2013	54	7:55am – 10:47pm (8hr2min)	Absent: 3:40pm – 9:30pm
16.1.2013	51	8:12am – 10:16pm (9hr48min)	Absent: 4:55pm – 9:11pm
17.1.2013	44	8:02am – 10:39pm (7hr44min)	Absent: 3:54pm – 8:47pm

It can be calculated that during Week 1, the Administrator was posting to TFWCH approximately every 4.3 minutes that she was operating on the page; and every 10.6 minutes during Week 2. This represents approximately 87 hours working on the page per week and 12.5 hours working on the page per day in the first two weeks of the page's life.

Discussion

A detailed discussion of each individual research question that draws data out of this chapter will appear in Chapter 9.⁵⁷

This analysis has shown that the page was ‘popular’ with a high number of likes, impressions and unique viewers (see Table 5.3). This suggests the page appealed to many people in the community, although it cannot be established precisely why. There are no normative guidelines as such to compare against: that is, quantifying ‘popular’ is impossible. However considering the population of Tasmania is small,⁵⁸ and that the disaster was also relatively small in scale,⁵⁹ these figures are sizeable. With such an extensive base of users it can be assumed that there were significant levels of interconnectivity in the community.

In a study of the use of social media by the Queensland Police Service (QPS) after the devastating flooding in Queensland, Ehnis and Bunker (2012) note how quickly the ‘likes’ of the Queensland Police page rose, and commented, “Through the fast rising number of “Likes” of the QPS Facebook page, it was possible to see that the community has a high interest in trusted information from government agencies during the time of a disaster” (p. 9). Thus Ehnis and Bunker argue that trust was an important factor in the rising popularity of the QPS page. It is worth noting that in Tasmania, at the time of the fires, there were few other reputable sources on social media,⁶⁰ so it is possible people did not come to TFWCH because they trusted it initially, but because they had few other options.

⁵⁷ See Chapter 9, Research Questions 1 through 4

⁵⁸ The population of Tasmania is just over half a million people, as per: [http://www.treasury.tas.gov.au/domino/DTF/DTF.nsf/LookupFiles/Population.pdf/\\$file/Population.pdf](http://www.treasury.tas.gov.au/domino/DTF/DTF.nsf/LookupFiles/Population.pdf/$file/Population.pdf)

⁵⁹ This is an almost impossible statement to make, but considering the scale of some disasters in the past decade, such as the earthquake in Haiti and Hurricane Katrina, in terms of loss and destruction, this event was relatively small.

⁶⁰ Most of the relevant professional emergency management agencies did not use social media extensively in these fires. At this time the TFS did have a Facebook page and a Twitter account; but the content contained a simple automated feed from their website, and directed users back to the website. There was no ‘human’ element to these tweets and posts; and as can be seen by the TFS Twitter account, they did not follow anyone nor did they

The initial week of operation was the busiest week in the life of TFWCH. Mobile devices were important initially (see Table 5.3), a trend which reversed almost immediately. This means any adopters of social media need to consider how their messages and posts appear on multiple devices.

It is almost possible to quantify, using this data, how long the news about the disaster stayed in the mass media news cycle, as referrals coming from the local newspaper dropped substantially between Week 3 and Week 4. All referrals from external websites to TFWCH dropped over time as the emergency fell out of the news cycle.

Like the mass media, often the interest and assistance from volunteers and the wider community does wear off quickly. This was reflected in research conducted by Bird et al. (2013), who found that survivors of major flooding felt like the rest of the city had “moved on” while they were still struggling with the aftermath. The sustainability of the public’s interest after a response is an ongoing challenge. In a Red Cross survey examining spontaneous volunteers who attempted to register with a number of official organisations, 78% of people who had volunteered to help had done so by the end of the first week after the event (Cottrell, 2012). People can become disengaged very quickly. A useful reflection here comes from the Volunteering Queensland submission after the floods (2011).

For instance, at one point Volunteering Queensland received a request from a client organisation asking for 30 volunteers. CREW contacted 300 people who registered on the CREW database in order to find those 30 volunteers. Only a week after registering on the database, a vast majority that were

interact. TASPOL had a Facebook page but it was not set up as a functioning Facebook page; it was simply a blank homepage with the TASPOL logo on it, and links to the TASPOL website. They were not on Twitter at all. The State Emergency Service did have a pre-existing Facebook page, which they were using. A few local volunteer fire brigades had Facebook pages that were being run by family members or other volunteers associated with the brigade. The State Government created a Twitter account approximately a week after the fires had happened. Some local politicians were using their Facebook pages quite actively, and all media outlets were using their social media platforms extensively. A number of other unofficial, community-led Facebook pages were created in response to the fires. An estimate would be that around 20 or 30 pages on Facebook were created that were generally focusing on specific elements of the disaster; such as offering praise to the fire fighters, assisting with the search for missing pets, or advertising fundraisers.

contacted were not prepared to volunteer. In most cases the explanation was that personal circumstances of those who registered changed; they had to go back to work, needed to help their family and friends or simply lost interest. (p. 5)

Hence there is a need for community-based sources to be available over the entire recovery period. An emergent group such as TFWCH seems to offer more of a solution to the longevity of a community's response, but it is important to note that even in this case, almost 95% of all the impressions of the page and 96% of the stories generated happened within in the first three months.⁶¹

More fans of the page were female than male, and female fans were more engaged with the page than male fans (see Tables 5.8, 5.9 and 5.10). There is an interesting age breakdown, with, as would be expected, younger fans more common on the page. The results support previous findings that it is younger people and women who primarily use Facebook, both in general, and during emergencies (Bird et al., 2012; Font PR, 2013). This is important information for considering who is attracted to a page like this and why, and which segments of the population may not be being reached by social media.

The majority of fans were local, but a surprising number were not local (see Table 5.9). This is interesting evidence for the increased global interest in disasters. It is also evidence for the ability for social media to both increase interest for a local disaster from afar, and to facilitate collaboration and connectedness amongst diverse members of the global community. A reason for this increased interest in local events may be explained by research by Bird et al. (2012) who found that during the Queensland and Victorian floods of 2010 – 2011, 65% of respondents were using various Facebook pages to get information on their own community, around 45% to

⁶¹ This does reflect, in some part, the fact that due to time restrictions, the Administrator had to return to full-time study after the fires in order to work on this thesis. For this reason, having multiple Administrators is an important recommendation for future online emergent groups, and this is discussed Chapter 9. This in-built redundancy is critical for community resilience.

get information on their family's community, around 38% for information on their friend's community. Thus it seems that people out of the geographically impacted area are using social media to access information about those they know and care about even in far distant places.

This analysis has revealed the time commitment required by the Administrator in order to manage the page (see Tables 5.11 and 5.12). There is evidence for the fact that managing social media in times of crisis is a resource-heavy job, which has important implications for the sustainability of these sorts of voluntary positions.

From this chapter, an initial understanding of the reach of the Facebook page, and the people who were using it, has developed. The following chapter, Chapter 6, begins to examine the content being shared over social media by the Administrator of this online emergent group, in order to begin to get a grasp around what these groups do and focus on in an emergency situation.

5. Chapter 6 – Qualitative Analysis of Facebook Posts

Introduction

In this thesis, a better understanding of the activities and characteristics of an online emergent group and the leader of such a group is sought. The aim of this thesis is to explore if an emergent group may be able to facilitate community resilience. Thus analysing the main Facebook posts written by the creator of the page is an appropriate starting point.

Thus in this chapter, a qualitative thematic analysis of all the posts created by the Administrator of TFWCH in the first year of the page's life is presented.⁶² The 2,443 posts written by the Administrator for one year from January 4, 2013 were uploaded into NVivo, using the NCapture function, and were subject to a thematic analysis (Braun & Clarke, 2006). This analysis was conducted in order to explore the key topics being posted about on the page, and to be able to provide a snapshot of the functions and characteristics of this group.

Method

Research design

The current study used a retrospective case study design.

Data Analysis

The data analysis method for both the analysis in this chapter and Chapter 8 was thematic analysis. As detailed below, the steps and guidelines put forward by Braun and Clarke (2006) were specifically followed, and guidelines provided by

⁶² Although this is the first qualitative analysis being reported in this thesis, this was in fact the second qualitative analysis that was conducted as part of this research. The first qualitative analysis that was conducted is presented in Chapter 8.

Richards (2005), Denzin and Lincoln (2008), Bazeley (2007) and Morse and Richards (2002) were followed in a more general, less prescriptive way.

The decision to conduct a thematic analysis was carefully considered. Qualitative analysis is a good way to garner a deep understanding about a particular case, including its features, and its impact (Braun & Clarke, 2006). Thematic analysis is an excellent approach in this case due to its flexibility, as it is a method rather than a strict methodology, which suited this project. Thematic analysis is also useful when the data are not interview data. This approach was chosen for this particular study, as the data had been gathered before any research questions had been developed, in order to maximise the data opportunity that had been presented to the researcher. This is often the case with post-emergency research: it cannot be planned or prepared for; opportunities must be taken as they arise.

Braun and Clarke (2006) put forward a number of key questions to answer before commencing any thematic analyses. The key questions to answer include a) whether the approach would be theory or data-driven, b) inductive or deductive, c) with a focus on semantic or latent coding, and d) which epistemological approach would form the foundation of the analysis. These are now discussed.

a) The decision was made to let the data drive the analysis, rather than to let established theories drive the analysis. For this reason, aside from a brief engagement with the literature immediately post-disaster to explore whether this research ought to be conducted and to then propose the research, the research literature was not consulted extensively prior to commencing analysis.⁶³

⁶³ As mentioned in Chapter 4 (see The Current Project), the lead author was part way through a doctorate when these fires occurred and the data was gathered. Thus she had engagement with some areas of the literature, but not all of them. In order to preserve the focus on being data-driven rather than theory-driven, the literature was not explored further once this analysis had commenced.

This was in order to avoid any biases or pre-conceived ideas dictating the direction of the analysis, and thereby narrowing the analytical field of vision (Braun & Clarke, 2006), but also because, as often happens with case study research, the data presented themselves prior to the intention to examine it. This potential trap is also described by Richards (2005, p. 172), who advises, “Never allow the case to lead you into only one corner of the theoretical yard”. Taking this route was considered important, as the student researcher was also the Administrator of the page. One downside of conducting research post hoc is that it is possible that subsequent events, readings and conversations can skew people’s recollections and understandings of events, for example, by being exposed to other people’s memories of an event. For this reason, the researcher avoided learning anything ‘extra’ about the events in order to avoid layering new knowledge on top of the lived experiences of the disaster, which would have altered the interpretation of events.

Bazeley (2007) discusses that historically, there is a belief that a data-driven approach to research requires that the researcher not be influenced beforehand by a priori reading of the literature, arguing that ideally, a researcher would not bring any theoretical concepts into the analysis. She also argues however that this is not considered realistic, nor is it in fact as broadly supported today. As a compromise, Charmaz (2006) advocates deferring writing the literature review until after the analysis and theory development.

Therefore, it is argued then that in the rare circumstance where the analysis *can* be data-driven rather than theory-driven, and when the literature review *can* be completed post-analysis, then the opportunity should be taken. Although there were occasions where it was felt that a prior knowledge of the literature would have helped sensitise the student researcher to minute but potentially vital nuances in the

data, on reflection this method was appropriate and preferential as far as it ensured that the highest quality, thorough, and unbiased analysis was conducted.

b) This reasoning too is responsible for why it was decided that the approach would be inductive rather than deductive: that is, being driven by the content of the data, and not by pre-existing concepts or ideas. The strategy was to provide a rich description of the data set as a whole rather than provide a highly detailed description of one small area of the data set.

c) A decision was required on whether the content would be analysed by examining the semantic themes or the latent themes (see below for a definition) within each piece of data. The strategy chosen was to start with semantic coding of the data initially, that is, examining the explicit content of each piece of the data set and avoiding ‘reading between the lines’. After semantic coding, the intention was to then re-examine the data, and commence latent coding – that is, looking at the deeper meanings, assumptions and concepts that were underpinning the data and the codes that had already been established.

This more abstract, ‘bigger picture’ analysis took place at the end, when the codes were being organised into overarching, key, and subordinate themes, and diagrams and models were being created for the major themes that had emerged. This strategy was chosen so as to not lose any potential information from the data, by trying to see the bigger picture too soon – and fits in with the decision to be data-driven, as was discussed in the preceding paragraphs.

d) Manuals for thematic analysis suggest data can be approached from an essentialist or realist point of view or a constructionist point of view (Braun & Clarke, 2006). The first focuses on assuming that there is reality evident in the data; and the researcher’s job is to report it when it is found. The second focuses on

believing that reality does not exist as something to ‘uncover’ – it is *created* by the data, so the researcher has to engage in extensive interpretation of the data, recognising that meanings and experiences are socially constructed.

Usually, but not always, analyses are conducted from one of two clusters of approaches: inductive, semantic and realist, or deductive, latent and constructionist. The approach used for this research can be summarised as inductive, latent and then semantic, and constructionist.⁶⁴

Thus the set of steps outlined by Braun and Clarke (2006) for conducting thematic analyses was followed (see Table 6.1 below), and these are discussed in detail in the following sections.

⁶⁴ While an in-depth discussion around linguistics and how humans construct the world is beyond the scope of this thesis, the viewpoint put forward is that human beings do construct the world, and that there is no universal truth that can be discovered. This epistemological viewpoint did not influence the analysis of the data to any great extent; but certainly influences how it is expected that this data will and should be interpreted by the researcher and the reader.

Table 5.1. Phases of thematic analysis (Braun & Clarke, 2006, p. 87)

	Phase	Description of the process
1	Familiarizing yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2	Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3	Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4	Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map’ of the analysis.
5	Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6	Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples; final analysis of selected extracts; relating back of the analysis to the research question and literature; producing a scholarly report of the analysis.

Participants

This case study involved the analysis of one participant. The participant was the Administrator of the TFWCH Facebook page. The participant is a 29-year-old female from Hobart, Tasmania, Australia, who created and administered a Facebook page in order to address the needs of the community after a natural disaster.⁶⁵

It is important to note that in this analysis, the Administrator’s posts were being examined. People either generate information by providing information they have themselves, first hand, or bringing other relevant knowledge from other external sources to social media. Thus an important point to note here is that the vast

⁶⁵ See the See Chapter 4, An Anecdotal Introduction to *Tassie Fires - We Can Help* for the background to the creation of this Facebook page.

majority of information that the Administrator was sharing over the page was brought to her by the community, and was not generated by the Administrator herself, as she was functioning as an apomediary or information broker. Therefore, apomediation had already occurred as the Administrator was making decisions about what would go up on the page or not.

Thus many of the posts created by the Administrator contained repeated information from emails, phone calls, private messages or public posts created by community members or official responders. This creates a useful window into how others were feeling and interpreting the disaster, and the usage they were getting out of TFWCH. Thus by analysing the posts created by the Administrator, insight into what the community was seeing, feeling and experiencing can be gained. It is therefore important to remember throughout this chapter that the analysis refers only to content from the Administrator's posts; content is not taken from anywhere else for this chapter. However, rather than continuously repeating the source of the information, the themes are recounted directly.⁶⁶

Materials

The data were gathered by using the NCapture function of NVivo, which downloads information from selected social media platforms or pages and presents them in NVivo, ready for analysis.

The first NCapture was completed on September 11, 2013, when all posts from January 4 to September 11, 2013 were NCaptured and uploaded into NVivo. A total of 39,039 comments and posts from all users of the Facebook page were

⁶⁶ For example, "Many people were isolated" is how a theme is described rather than "Through the analysis of the posts by the Administrator, it can be seen that many people were isolated."

included in the NVivo data set at this time, of which 2,443 were status updates created by the Administrator.

The original research plan in September 2014 was to analyse these 35 weeks' worth of data. However, there were difficulties and time delays accessing statistical data from Facebook via Locowise, outside of the control of the author. The statistical data were made available on February 17, 2014. Thus, given the existing delays to the project, it made sense to gather a year's worth of data from NVivo at the same time, as they were all now available.

Thus the second NCaptured data set was uploaded into NVivo on the February 17, 2014, and covered a time period of posts from the birth of TFWCH (January 4, 2013) right up to February 17, 2014. The data to be used were from January 4, 2013 to January 3, 2014. Data from January 4, 2014 to February 17, 2014 were not analysed because they were outside the time frame of interest.⁶⁷

In this second data set, there were 38,590 posts and comments in total. This means that even though a longer time period had been NCaptured, there were in fact less posts and comments than the first NCaptured dataset. Thus between the two sets of data capturing, the first in September 2013, and the second in February 2014, some of the data had been lost.⁶⁸

In order to minimise the amount of data lost, it was decided that the first data set NCaptured on September 11, 2013 would be used to analyse all posts for that time period. Then, for the posts that had been made in late September, October, November, and December, the new data set would be used.

⁶⁷ Posts were still being put on the page after this time (and still are to the present day). The analysis could have continued indefinitely which is why putting a time frame – one year – around the analysis was important.

⁶⁸ This could be because when a Facebook user shuts down their Facebook profile or changes their security settings, all their comments and posts are no longer visible; or because people deleted their own posts.

Procedure

Having uploaded all the required data into NVivo, the step-by-step procedure outlined by Braun and Clarke (2006, see Table 6.1) was followed. As per Step 1, all posts were read, and then the first 50 posts that had been posted by the Administrator on TFWCH were analysed, and coded, as practice analyses. The analysis proper then commenced. This stage represents Step 2 of the guidelines put forward by Braun and Clarke, which is to generate initial codes. Each post was read a few times through, and categorised for its content and any other interesting features relating to language or style.

Two documents that ran alongside the NVivo file were as follows. The first was a journal, which included interesting and useful verbatim quotes copied from NVivo, memos and notes about the data, to include in later discussion. The second document was a Microsoft Word document. The purpose of this document was to copy-paste within it all new codes at the same time that they were created in NVivo. This was to make the process more systematic as it was recognised that the number of codes was likely to exceed five or six hundred (at a minimum).⁶⁹

2,443 posts needed to be coded; many of which were long (550 word posts were not unusual). The first 969 posts were analysed in their entirety, which meant that the first five days of the page's life had been completely analysed. This part of the analysis took over eight weeks to complete.

At this point it became clear that the analysis strategy needed to evolve and change, for two main reasons. Firstly, the initial five days of the page's life were the busiest; and the number of posts created started to gradually diminish after this point.

⁶⁹ It was known this document would assist with organising and managing the codes, creating clusters of similar codes from early on, thereby avoiding duplication and time wasting at a later stage in the analysis. This was a lesson learnt from the first analysis (presented in Chapter 8), and ensured that manual sorting of the codes was not required.

Secondly, and more importantly, it was evident at this time that the rate of creating new codes was slowing down rapidly, suggesting that less new information and insights were being offered by the posts. The commitment required to fully code each post was not bearing fruit as it had been previously. Thus it was time for a change in approach.⁷⁰

All the posts from January 9, 2013 to January 3, 2014 (that is, all the posts that had yet to be coded) were read in their entirety. This equated to 1,474 posts. If a post contained anything new, different or interesting that had not already been coded for, a new code was created, and identified as a code that had not existed in the data prior to January 9, 2013.⁷¹ Occasionally, if the content within a post added considerably to a pre-existing code, it was included in that code. Simultaneously, as mentioned above, notes were being taken in the journal document, and interesting quotes were being copied from NVivo. A copy of the NVivo file for the first 969 codes was saved, in case frequency data for the first five days of the page's life was sought after.

A review occurred part way through this analysis,⁷² and then the codes were rearranged at the conclusion of the analysis to ensure they all belonged with other

⁷⁰ Initially there was discussion around analysing a random sample of every 20th post from the remainder of the data (such as was done with the research on Twitter by Bruns et al., 2012). Another possibility was to take 20 random posts out of each quarter of the year, or to just take a random smaller sample of 50 to 100 posts from all the remaining posts, and analyse those. However it was clear that this would not be a suitable strategy, as the chances of finding the unique, specific, different codes that had not been uncovered yet was too low; and the chances of analysing a post that only contained content that had already been coded for multiple times was too high. Furthermore, as with any response and recovery after a disaster, different events and priorities are prominent at different timelines and intervals. Therefore it was deemed important to continue to track the page and its posts chronologically in order to follow the timeline, storylines and progress of the page in its entirety. Thus a different strategy, detailed above, was settled on.

⁷¹ While another approach would have been to analyse every 4th post or 20th post (or similar), this approach was not deemed appropriate. It was considered necessary to read and consider every single post the Administrator had created, as after a disaster event, the recovery changes form and shape with each passing week and month. Only analysing every *x* number of posts would have meant valuable information was lost.

⁷² When 529 posts were left to read and analyse, coding stopped for two days. In this time, the Word document containing the clusters of codes was re-organised, and sorted, including sorting a cluster of codes that had been filed under the theme 'Random'. More than 900 codes had been created. These appeared in clusters of predominant themes, significant themes nested within those, and smaller themes nested within those themes. The final 529 posts were then analysed.

similar codes. By this point, Steps 3 and 4 of the guidelines put forward by Braun and Clarke (2006) had been satisfied, as the themes had been generated, and had been reviewed to check that they did indeed fit with the data at its most basic coded level, and with the overall data set as a whole.

Step 5 in Braun and Clarke's 2006 model was then undertaken – naming and finally organising all the themes. The Word document containing all the codes was then turned into three tables. The first table contained the overarching themes. The second contained the themes sitting under the 'overarching themes,' and these became the 'key themes'. The third table contained the 'subordinate themes,' nested under the key themes. These tables were then condensed into six tables based around the overarching themes and are presented in the Appendix (Tables 3 – 8).

Results

The tables containing all the results appear in the Appendix (Tables 3 – 8). Table 6.2 below introduces the overarching themes. Each of the overarching themes will be discussed separately and with verbatim quotes from the TFWCH Facebook page.

Table 5.2. Qualitative Thematic Analysis 1: Overarching themes

Overarching theme	Description
The emergency	The scenario that had developed due to a bushfire emergency
The response	Aspects relating to the official response and the community response
Page administration and management	Administrative and communication style and approach; page structure, function, and design
Page function: a platform for sharing information	The broadcasting of information relating to multiple topics and issues
Page function: an arena for requesting help	The broadcasting of requests for assistance relating to multiple topics and issues
Page function: a marketplace for offers of help	The broadcasting of offers of assistance relating to multiple topics and issues

It would be usual practice in a thematic analysis to provide a verbatim quote from the original data source for every main concept; however, due to the number of key themes, only some select quotes will be included.

It is critical to reiterate that this analysis was data-driven and not theory-driven. Therefore the themes are organised and developed based on a raw analysis of the data before any theories or research questions had been developed, in order to reduce bias in the analysis. Thus the results of this analysis (and the second qualitative analysis in Chapter 8) are descriptive, which is a valuable contribution in and of itself, as so little is known about these groups. A more intensive analysis of the themes in light of the research questions is explored in Chapter 9.

Key themes under each overarching theme

It is acknowledged that each overarching theme is substantial, and that this data analysis chapter is extensive. This serves to further emphasise the complexity and diversity inherent in community response and recovery to disaster events. Tables

3 to 8 in the Appendix present the themes in a concise way, categorised by overarching, key and subordinate themes. Viewing these tables first may aid theme comprehension of this chapter.

To reiterate, this analysis is largely descriptive. A discussion of how these themes relate back to the central research questions and theories of interest in this thesis comprises Chapter 9.

A section is now dedicated to each overarching theme, and in each of those sections, the relevant key and subordinate themes are introduced. The themes reveal information about the emergency, the response, the Administrator's role and functions, and TFWCH's role and functions, through the analysis of the Administrator's posts throughout the first year of the page's life. It is informative in and of itself that the Administrator could be so informed about events simply by managing a social media page. It is also informative how much information about an emergency event can be gleaned simply by analysing the posts of a page Administrator, which is what contributes to social media archives being so useful for research purposes.⁷³

The emergency

Many of the posts created by the Administrator shed light on the emergency situation as it unfolded. In this theme – the emergency – any information pertinent to helping give a snapshot of what was occurring in real time, such as the scale of loss and fear, is included in this overarching theme.

⁷³ As with any thematic analysis, there is some crossover within themes. Therefore some themes mentioned within an overarching theme were also categorised within a different overarching theme. Where the crossovers occur can be seen in the Appendix, in Tables 3 to 8.

The three major bushfires that began in January 2013 were devastating, and the extent of damage sustained was great.⁷⁴ People lost properties, fencing, outhouses, sheds, pets, animals, boats, vehicles, livestock and businesses. It was smoky, dark and difficult to land the private boats that were attempting to deliver much-needed supplies in to the area. The fires were still active, with conditions changeable and unpredictable, for many days.

People were hiding in the water of the ocean to try to save their lives. Some people who were stranded needed medical care. Several people were missing and being searched for by friends, family (as in the example below) and Tasmania Police.



75

Even late on January 9, a long list of people was still unaccounted for according to Tasmania Police. Many people had not heard from loved ones for more than 24 hours since the fires had begun. Much of the affected area had completely restricted access, and was marked as a crime scene, due to this fact that many people remained unaccounted for.

Many people were evacuated in the southeast area of Tasmania. The ferries operating for this task were under pressure and were at maximum delivery capacity.

⁷⁴ As mentioned in a previous section in this chapter (see Participants), rather than continuously repeating the source of the information (the posts created by the Administrator), the themes are recounted directly. For example, “The extent of the damage was great” is how a theme is described rather than “Through the analysis of the posts by the Administrator, it can be seen that the extent of the damage was great”.

⁷⁵ 5.1.2013, 9:30pm

Individuals were launching their own vessels in order to help friends and family evacuate, as well as evacuating strangers.

People were stuck, stranded, misplaced or in the evacuation centres and many of these were tourists and visitors. People were stranded in isolated pockets, looking out on the ocean at the ferries going past, or even on the side of the road as traffic went past (as in the example below), waiting or hoping for help or assistance.



76

Many roads were blocked initially and Tasmania Police and the emergency services could provide police escort in and out of the affected area for essential services and deliveries only. Some organised, specific and escorted convoys were heading in and heading out of the area with Tasmania Police from January 8. It took ten days for the roads to be completely reopened.

Phone towers were out of commission, landline phones were inoperable, it was extremely hard to communicate, and mobile phones were running flat or were completely flat with no way to recharge them. As a result of these poor telecommunications, there was chaos and confusion in the affected areas. Some local information was trickling out to friends and family; and some people were

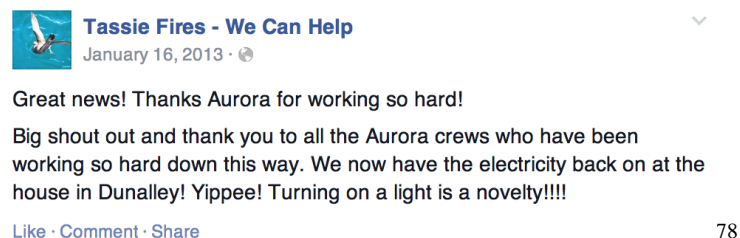
⁷⁶ 6.1.2013, 10:44am

conveying it to TFWCH, or people who had travelled into the area by boat were conveying information back to TFWCH.

The entire peninsula initially lost power, and it was thought that power would be non-functional for approximately one week. As of January 7, in the afternoon, about 3,000 homes had no power in the south of Tasmania. No power meant a lack of functioning toilets. The single service station in the area was not functioning initially, as it too was without power. People desperately needed petrol for their generators so that they could have power, mainly so that they could use their water tanks to fight the fires: water tanks need power to operate (as in the example below).



By January 15 power was back on in some areas, which was quicker than had been expected. The community appreciated this, as can be seen in the example below.



Animals, wildlife and pets were affected, with many being injured, burnt and at the point of starvation. By January 9, some livestock were close to death for lack

⁷⁷ 8.1.2013, 7:12pm

⁷⁸ 16.1.2013, 10:20am

of food. The situation was even worse in some areas by January 17. The loss of fencing became a major issue as farmers began to have difficulties with their remaining livestock escaping (as can be seen in the example below).



79

A voluntary, private emergency vet clinic started operating from January 13 to 21 and was busy during this period; treating injured pets, wildlife and livestock.⁸⁰

Infrastructure, tourism, the local economy and businesses were gravely affected. Local businesses were under threat – either from the fire threat, the loss of power, the loss of business and customers, or a combination of the three. A local primary school burnt down. The further-reaching effects of some of these businesses being destroyed or incapacitated were serious: the potential ripple effect on other families, businesses or economies in the area and beyond could be great.

People expressed that they wanted information so that they could stop worrying, and they were seeking information and asking questions about multiple topics. People were asking for more information about the exact location of the fire: where it was, where it had been, and where it was going (see the example below).

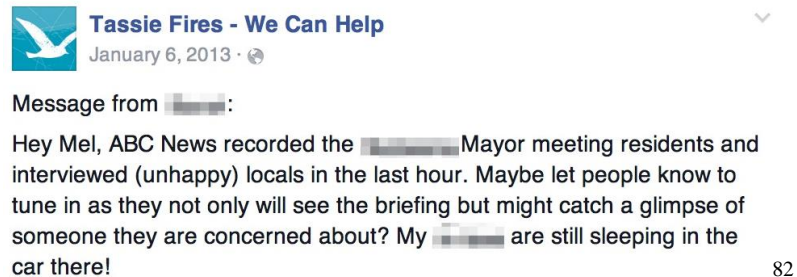
⁷⁹ 17.1.2013, 9:24pm

⁸⁰ An emergency vet team that formed was a volunteer team of local veterinarians. They initially attempted to work with the Government to establish an emergency animal clinic. The process was proving slower than they anticipated and so they launched their own independent, self-funded volunteer response, which functioned for a number of weeks.

People were asking for advice on how to get away from the fires, what exits to use, and which roads to use.



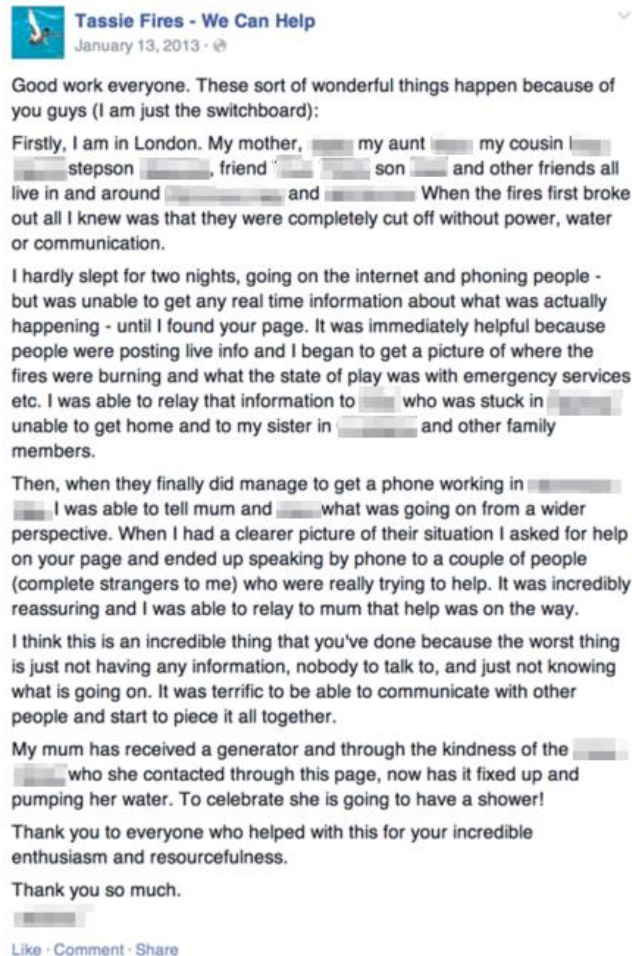
People felt they were not getting enough information through the normal channels, or that it was contradictory, or too slow.



The official response was felt to be inadequate, and not rapid enough. People stipulated that they were asking for fire-related information because the TFS website was not giving enough, suitable or accurate information on their query. People were saying that they could not seem to find much information elsewhere about the fires, the response, and the overall situation (as per the example below), or that they were receiving conflicting reports.

⁸¹ 7.1.2013, 8:59pm

⁸² 6.1.2013, 5:35pm



83

People in the affected areas commented that a different scenario was playing out in the affected areas than what the official agencies were portraying, in that there were still many needs within the affected area, and that the community needed to keep bringing in items such as supplies, generators and fuel.

Confusion was rife. People commented that the official missing person's hotline was not able to help in the search for a missing person. Those from far away were seeking help to look for family and friends, as 'normal' avenues were not working or unsuccessful.

Volunteering Tasmania⁸⁴ had set up their online registry where people could register how they could help by January 9, almost a full week after the fires started.

⁸³ 12.1.2013, 11:55am

The slowness with which the funding was distributed frustrated and confused many people, illustrated by the fact that on January 24, the Red Cross Bushfire Appeal committee⁸⁵ apologised for taking so long to distribute donated money. None had been donated yet at this stage. There was some evidence that the communication strategies of the Government were not as effective as they could or should have been.⁸⁶

People were low on supplies; and many people were without basic supplies, particularly so in some specific locations in the fire-affected areas. Some centres or places were receiving help and supplies, while others were not. One of the main recovery hubs was inaccessible for many people, as they did not have enough fuel to get there from other parts of the affected area. People distant to the fires (but still behind the roadblocks) needed supplies, help, and attention, because they too had been effectively cut off.

One of the main general stores in the affected area which was providing food to stranded people was out of supplies; a nursing home in the area was low on basic supplies; and fire stations reported they were running out of water on the other side of the road blocks. Thus private boats were trying to target places that were being missed out or who were in need of assistance.

The lack of fuel continued for more than a week even when plenty of other donations were getting in. Volunteers were low on fuel too – volunteer groups were struggling to keep paying for their fuel in order to maintain their volunteering

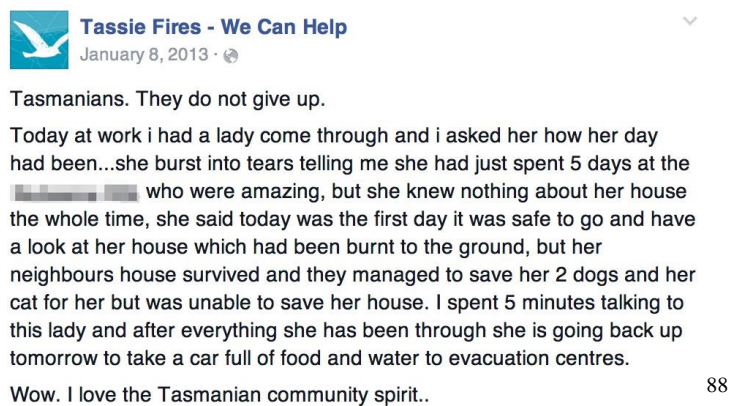
⁸⁴ Volunteering Tasmania (<http://www.volunteeringtas.org.au>) is the peak body for volunteering in Tasmania. It is an incorporated, not-for-profit, community-based organisation.

⁸⁵ In Australian disasters, the Red Cross is tasked with creating a central fundraising initiative, and in accordance with federal laws, forms a committee to equitably distribute all funds raised.

⁸⁶ Tasmania Police did not have a social media presence during the bushfires of 2013, and the TFS only had a one-directional, automated RSS feed updating on their social media channels. The Bushfire Inquiry recommended that better use of social media needed to be explored post-disaster. Tasmania Police then had a Facebook page up and running by the end of April 2013.

efforts. The service station in the area was not back in operation until late on January 6.

A number of local businesses and centres were operating as refuge centres for thousands of people. The emergency services were under immense pressure. Fire fighters were working 14-hour shifts for days on end, and other fire fighters were being flown in to Tasmania from elsewhere to assist with fire fighting.⁸⁷ People were fighting the fires for many days, defending not only their homes but also the homes of friends and neighbours. People's strength, determination, mate-ship, camaraderie, and the spirit in the affected areas was noted and admirable, as illustrated by the below example.



By January 8, the Government stated that it had already found housing for 300 misplaced people. The City Hall had been set up as a recovery site. The venue officially closed on January 11. St Vincent de Paul's were constantly requesting volunteers, and were constantly desperately in need of volunteers, to help sort through the donations. Within the first three weeks after the fires, a number of charities had already spent hundreds and thousands of dollars helping fire-affected individuals. Donated hay and feed drives were still happening in late February.

⁸⁷ Personal conversation with the TFS indicates that over 200 personnel were flown in from other Australian states and New Zealand to help with the firefighting and communication effort.

⁸⁸ 8.1.2013, 10:42pm

As could be predicted, the period was traumatic: the fires had physical and psychological impacts. It was an emotional time for those who had been affected and the wider community, as can be seen in the above quote. People were under the impression that the dislocation of the Peninsula, with the power being down, places being cordoned off, access being limited, and roads being blocked, was going to last an indefinite amount of time, if not a long time, and this caused distress.

People were stressed: worried, anxious, frantic, and fragile, looking for loved ones, wanting to help, and waiting for news. Some were exhausted from fighting the fires and others who were stuck in the evacuation centres with nothing to do were extremely bored. There were people who still did not know if their house was standing or not almost a week after the fires first started. ‘Survivor guilt’ (Raphael, 1986) was apparent, with people expressing guilt for not having lost possessions or property when others had.

People reported feeling overwhelmed and exhausted by late January. Many requests for help for individuals who had been affected by the fires came from friends and family asking on their behalf. Other people expressed feelings of being lost and at their wits end with not knowing how to even begin getting back on their feet and replacing lost items. People made mention of feeling hopeless or useless, wishing they could do more, or feeling compelled or moved to help out.

The recovery was difficult, and the longer-term recovery was hard for many people. There was recognition and messages by the Administrator and other users of the page that the recovery was going to take a long time. Many people were uninsured or not eligible for grants for fair or frustrating reasons.

A range of stressors were still problematic even weeks after when people were allowed back in to the area – such as the presence of uncontrolled fires, high

winds, unstable trees, building debris not secured, and the presence of asbestos in burnt-down homes.

The response

Many people and businesses wanted to help and were willing to help, and there were many examples of their generosity (as illustrated in the post below), and the overwhelming support offered and provided.



89

People were willing to travel a long way in order to help. Extensive donations were being made to St Vincent de Paul's at the Showgrounds; to the boats heading in to the affected areas; to Sorell, all over Tasmania. Even people on the mainland of Australia, overseas or located in faraway points in Tasmania were trying to assist with the response and recovery effort through TFWCH.

After the disaster had passed, there was recognition by the Red Cross that the Tasmanian response to the fires was unexpected – by January 22, over 18,000 people had donated cash to the Red Cross Bushfire Appeal, which was recognised as extraordinary (see the below post).

⁸⁹ 11.1.2013, 8:44pm



Tassie Fires - We Can Help

January 22, 2013 · 🌐

I had two phone calls from the Red Cross today about fundraising 😊

I will have an "official" post soon BUT I just wanted to say that they are absolutely stunned at how many fundraisers have been set up for the Tasmanian Bushfire Appeal. They said it had been huge; and quite out of the ordinary.

So. Well done all of you who decided that you too could host a fundraiser!

Still plenty of time to get something happening... Just gotta fill out the form!

<http://www.redcross.org.au/fundraise-for-us.aspx>

90

People wanted to help in direct and immediate ways, such as giving money straight to evacuation hubs. People emphasised that they did not want to send items to the charity in charge of collecting donations; they wanted to give ‘directly’ to people in need, and to help immediately.

A number of self-organised ‘splinter groups’ (private or official) were organised.⁹¹ Many of these were self-directed and already underway by the time the Administrator heard about them, and then they connected with TFWCH. Other splinter groups were started by people who had been following TFWCH and then decided to fill a perceived gap themselves.



Tassie Fires - We Can Help

January 8, 2013 · 🌐

*** HAVE YOU GOT HAY TO DONATE? ***

Contacts for the hay / feed drive across northern Tasmania are as follows.

co ordinator

Scottsdale ... road, Scottsdale
 Cressy ... road, cressy
 Spreyton ... road.
 Smithton ...
 Wynyard ... (near airport)

Like · Comment · Share

92

⁹⁰ 22.1.2013, 8:55pm

⁹¹ ‘Splinter group’ is a term that was used by a respondent on Q1 (see Chapter 7) and it is a term that is now being used in this thesis. It refers to a self-organised group of volunteers that had a response or recovery focus of some sort underway themselves either as a result of being motivated or encouraged by TFWCH or beforehand. In a similar way, in the study of emergent groups post Hurricane Katrina and Ike, Gardner (2013) discovered a non-hierarchical formula of leadership within the disaster relief centres. One way that responsibilities and roles were divided was that there became ‘point positions’. If someone noticed a need or had an idea, they were encouraged to pursue it themselves, and take charge for that particular issue, and become the ‘point person’.

⁹² 8.1.2013, 4:19pm

In a different display of trust and generosity, many private individuals were willing to post private contact information on the Facebook page.

TFWCH became well known, and people came to it to use its functions. The page gained recognition, and became widespread, early on in the disaster.⁹³ People were hearing about TFWCH on the radio while they were down in the affected areas. People, such as those referenced in the quote below, believed that TFWCH was ‘working’ – that it was effective, accurate and informative.⁹⁴



95

Information spread fast with the platform of social media, and problems could be solved quickly, such as the request detailed in the below post:



96

Social media was also seen as a positive – the ‘good side’ of social media was evident to users of the page. There were comments from users that they did not realise it could be ‘this useful’, as illustrated in the below example.

⁹³ It was recognised by the Administrator and others that the more people involved in the page, the better, thus there were many requests for people to share and ‘advertise’ the page.

⁹⁴ It is challenging to quantify how the page was ‘effective’; and quotes, comments and examples from those affected that utilised the page are the best and only evidence available for the efficacy of a response such as this.

⁹⁵ 8.1.2013, 10:44am

⁹⁶ 6.1.2013, 9:31am



97

Strangers were working with strangers to help other strangers in need, and social media enabled this to happen, such as in the example below.



98

Social media enabled the creation of brand new linkages and connections of people and groups. Specific donations to people in the affected area were possible even through a previously unknown middleman arranged through TFWCH. People believed that TFWCH could get their message across and communicate with the masses.

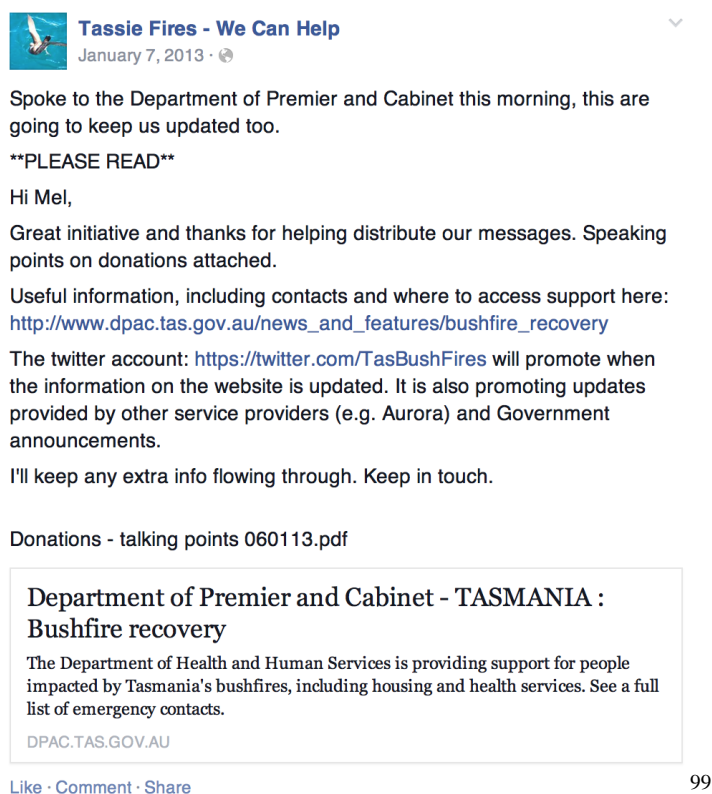
The response on social media could be conducted entirely from a remote location. The Administrator was distant from the fire-affected area.

Within the first 24 hours of the page's life, there was recognition by other groups, such as the unofficial splinter groups headings into the area by boat, and more official groups such as those operating the evacuation hub in Sorell, that there was a benefit for them in using the Administrator, TFWCH, and the page's large

⁹⁷ 8.1.2013, 10:36pm

⁹⁸ 23.2.2013, 12:58pm

audience to broadcast information to the masses. The State Government requested the Administrator's contact details in order to be able to pass it on to other departments so that other Government employees could get in touch and therefore share information through the Administrator and the page (see post below).



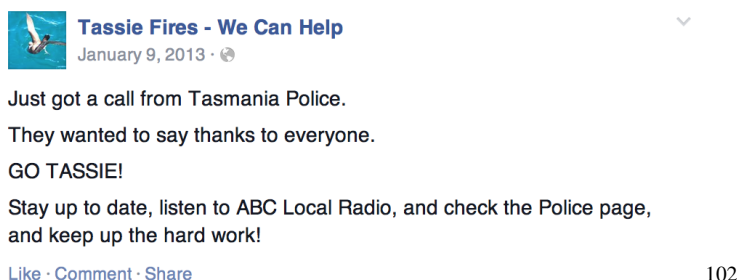
The TFWCH response was evolving and flexible and it operated beyond the initial emergency. The temporary TFWCH website was created on January 16.¹⁰⁰ Prior to this date TFWCH had been using a temporary Google Docs spreadsheet as a central repository for information, and this link was shared on the main Facebook page.

Government departments (such as the Department of Education and the Department of Premier and Cabinet), Tasmania Police and other groups (such as the

⁹⁹ 7.1.2013, 7:51am

¹⁰⁰ Largely in response to the questionnaires (see Chapters 7 and 8), which provided feedback about improvements that were needed, and in recognition that this would be a sustained response, a new website has since been built, with considerably improved functionality. This went live on June 18, 2013, www.tassiefireswecanhelp.com

ABC and *The Mercury*¹⁰¹ newspaper) were utilising intelligence from TFWCH, as evidenced by the posts that follow.



People believed that TFWCH was setting a precedent, and should be learnt from for future emergencies. There were comments around the page being unlike anything people had ever seen, with the quantity of helping and giving being incredible, as expressed by a user of the page in this post below.

¹⁰¹ The Mercury is the main statewide newspaper for Tasmania.

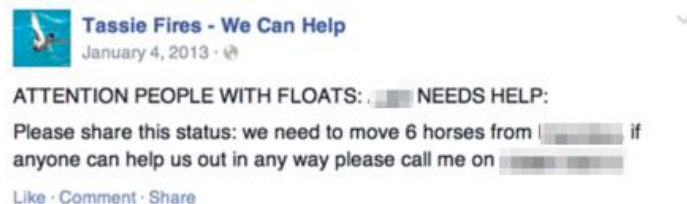
¹⁰² 9.1.2013, 1:44pm

¹⁰³ 13.1.2013, 11:32am



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There were comments around how the page was helping, how it was making a difference, how people's efforts were making a difference, and how the page was having an impact on actions taken. These comments were in addition to actual evidence, feedback, or updates about an issue that was being worked on that demonstrates that the page was of assistance. Although following connected posts is beyond the scope of this thesis, following one string of posts demonstrates the efficacy of the page.



105



106

¹⁰⁴ 11.1.2013, 11:41pm

¹⁰⁵ 4.1.2013, 11:34pm

¹⁰⁶ 4.1.2013, 11:36pm



There were comments that the page was accurate and informative. People expressed appreciation for the help and care being offered. The analysis found evidence of the users of the page noting that reading all the posts that went up on the page kept them up-to-date.

TFWCH and the Administrator were extremely busy.¹⁰⁷ In addition to posting on the main page, the Administrator was also monitoring and responding to ongoing comments and posts by other people, as well as ongoing phone calls and

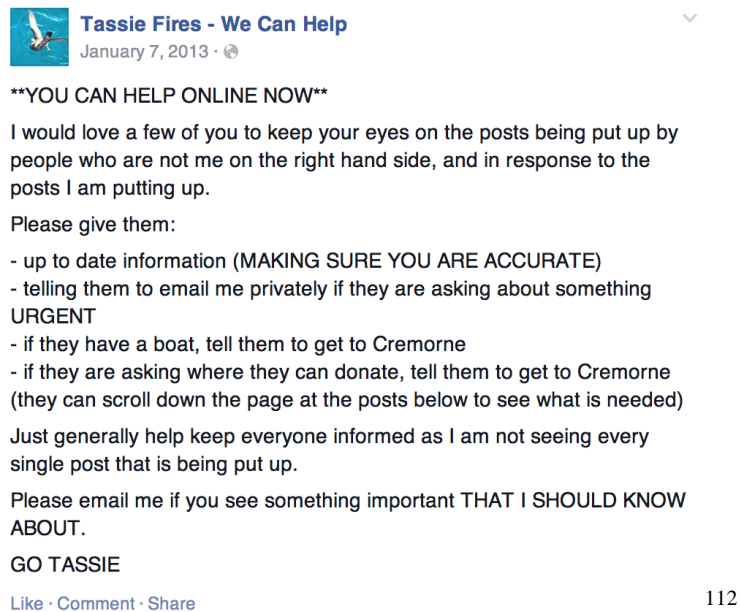
¹⁰⁷ 4.1.2013, 11:48pm

¹⁰⁸ 5.1.2013, 1:45am

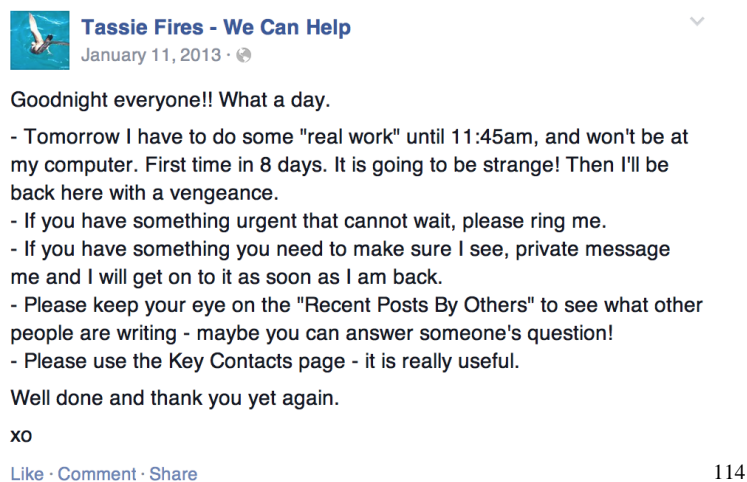
¹⁰⁹ 5.1.2013, 8:25am

¹¹⁰ While not measured, anecdotally, the rate of private messages sent to the Administrator was an email was approximately every 10 seconds during the height of the disaster. Private messaging was constant. However it is acknowledged that the word 'busy' needs to be used with caution, as there are no normative guidelines or definitions to help establish the relative level of busyness of the page and the Administrator.

text messages as another form of backchannel communication with people who were trying to help or needed help,¹¹¹ thus she sought help from volunteers online.



TFWCH provided an almost constant service in the first 14 days of the emergency. January 11, 10 days after the fires started, marked the first day the Administrator was able to be away from the page for a few hours, as illustrated in the below example.¹¹³



¹¹¹ The Administrator's telephone bill increased by 2,400% over the month of January 2013.

¹¹² 7.1.2013, 10:35am

¹¹³ The Administrator cancelled almost all commitments for the first week after the emergency. By this stage, almost two weeks post-disaster, the workload of TFWCH had reduced enough that the Administrator felt she could step away from the page for short periods of time.

¹¹⁴ 11.1.2013, 10:57pm

Up to this point, the Administrator had not left the page except overnight or for media interviews.¹¹⁵ There was the recognition or acknowledgement or evidence that Administrator was posting regularly, and ‘under the pump’.

The page was seen as a source of hope and inspiration – positive emotions were running high as people were moved and touched by the posts on the page and overall response of the community. The page provided support, filling gaps experienced in previous disasters, as demonstrated in the post below.



116

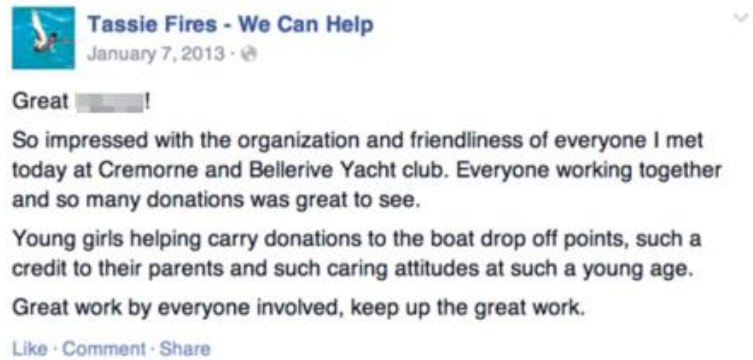
There was a comment posted that an individual was worrying less about loved ones in the area because of all the support they could see coming through. There was recognition from the Australian Psychological Society¹¹⁷ that the page was a terrific resource.

A number of posts demonstrated how reasonable, calm, and patient people were being. People were impressed with how organised the community-led response was and how well everyone was working together. There were regular comments around how much can be achieved ‘when everyone works together’.

¹¹⁵ As mentioned earlier, the Administrator recognised that having a strong following on the page was vital to its success, thus interview opportunities were accepted.

¹¹⁶ 5.1.2013, 12:19pm

¹¹⁷ The Australian Psychological Society (www.psychology.org.au) is the leading organisation for psychologists in Australia, representing and supporting 21,000 active members.



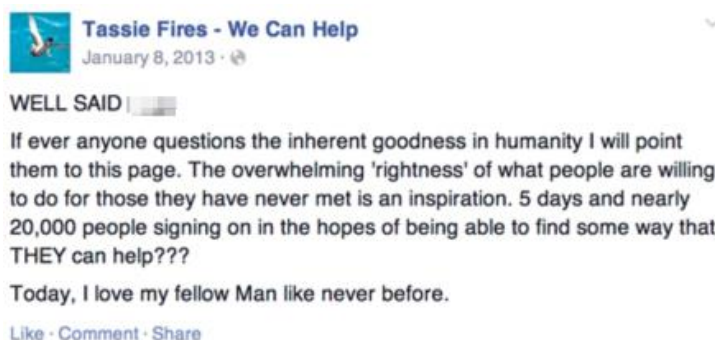
118

People were discovering and commenting that assisting and volunteering was proving to be rewarding, as illustrated in the below post.



119

Being able to help humbled people, and they were humbled by what they saw. A sense of pride was created for the community response, their state, and their achievements. There were comments about meeting strangers, getting to know them, building new connections, and making friends, due to the page, and users of the page recognised how the individuals from the community were pulling together to help people they had never met (see below post).

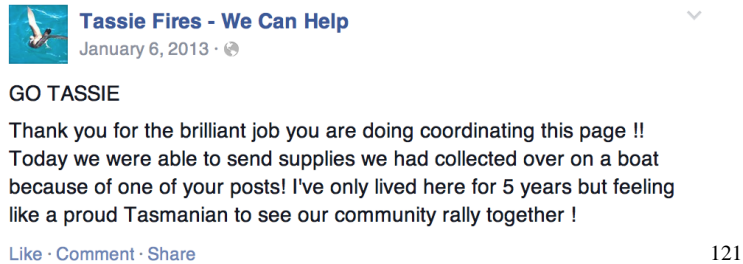


120

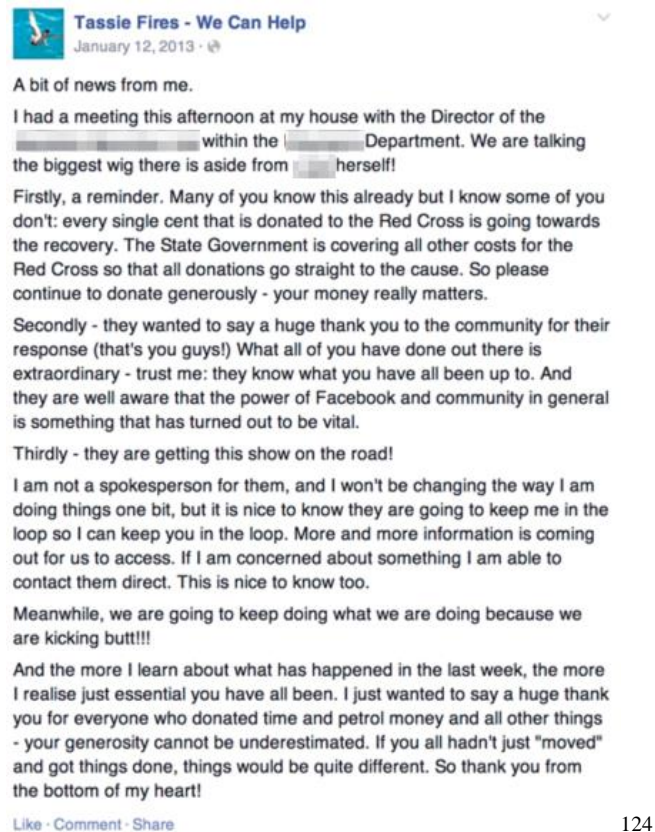
¹¹⁸ 7.1.2013, 7:35pm

¹¹⁹ 19.1.2013, 8:05am

There was strong sense of Tasmanian, Australian and community spirit.



Good linkages had been created between the TFWCH page and the Bushfire Recovery Unit (see below), the Department of Premier and Cabinet, ABC, individual politicians, the Red Cross, and St Vincent de Paul's, and other organisations such as Fire Foxes¹²² and Blaze Aid.¹²³



¹²⁰ 8.1.2013, 8:02pm

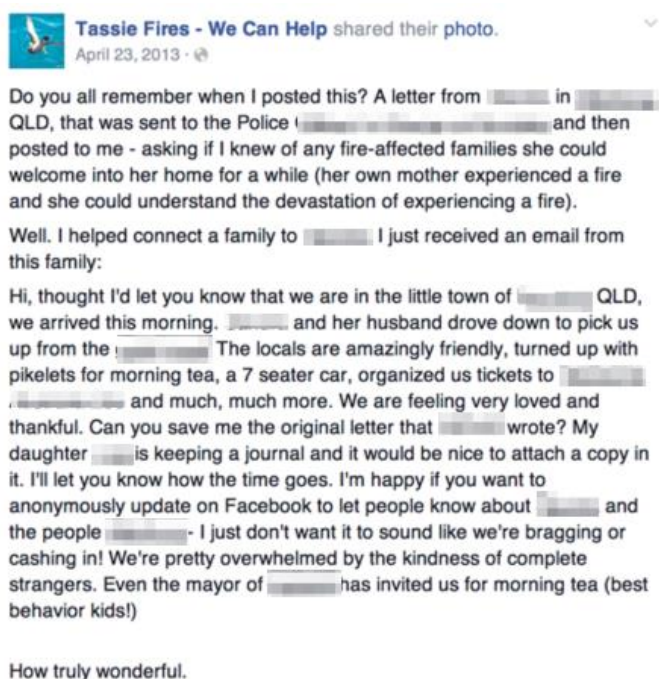
¹²¹ 6.1.2013, 11:03pm

¹²² Fire Foxes is an emergent group, now a not-for-profit organisation that assisted with the recovery post the Black Saturday bushfires in Victoria, 2009.

¹²³ Blaze Aid is another emergent group that assisted with rebuilding fences after Black Saturday, and has since been set up as a not-for-profit organisation.

¹²⁴ 12.1.2013, 6:49pm

Various groups were working together effectively, including community members helping other community members, as illustrated in the below example.



125

The TFWCH initiative also proved to have longevity. Some posts soon started coming up in February in relation to other fires that had started. A request for a generator for a major tourist attraction in the area for fires at the end of April was called in to the page and solved rapidly (see below).¹²⁶



127

¹²⁵ 23.4.2013, 9:02pm

¹²⁶ It is important to recognise that establishing from precisely where or why a resource such as this generator was sourced is impossible. It is assumed that TFWCH played a role but this cannot be confirmed in this case and many others.

¹²⁷ 27.4.2013, 10:01pm

Page administration and management

A number of posts revealed details about how the Administrator was managing and running the Facebook page. Thus insights into how an online emergent group is directed and led have been organised into themes contained within this overarching theme of page administration and management.

The Administrator sourced information actively from multiple official and unofficial sources, such as from the ABC radio, other pages on Facebook, or official websites, as well as passively, such as receiving information via a text message or phone call,¹²⁸ and networking or asking questions over the page, as in the below example.

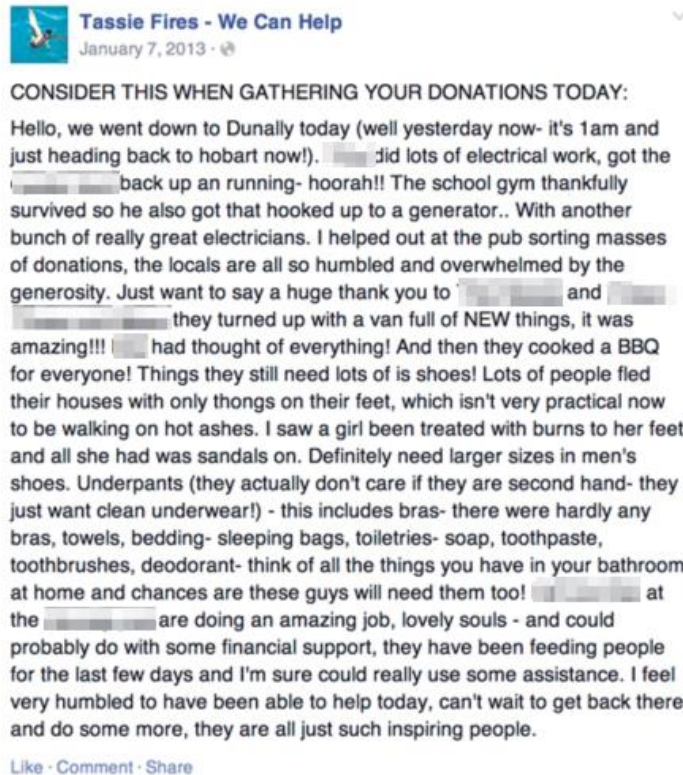


On some occasions, the information source was an individual giving inside information, but who wished to remain anonymous. On other occasions, official information was brought to the page that had not come from ‘the top’ yet but had come from someone on the ground or with some knowledge of the topic at hand.

Some local information was trickling out of the affected area, and people were bringing this information to the page, such as in the example below.

¹²⁸ An unofficial analysis revealed that for the majority of the time, the source of information was not someone the Administrator already knew, but every now and then the source was someone that the Administrator knew prior to the fires.

¹²⁹ 8.1.2013, 8:13am



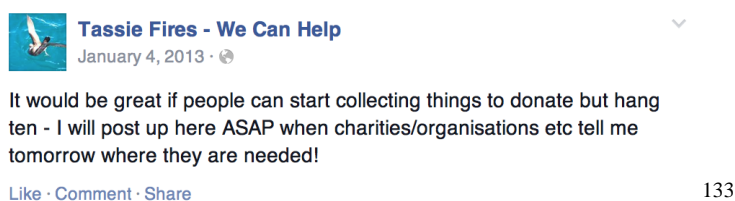
The Administrator engaged in extensive networking, in particular attempting to contact first-hand sources of information. The Administrator spent time connecting with official responders to try to source accurate and up-to-date information to then put on the page. Similarly, there were requests by the Administrator for people at the Evacuation Hubs, Recovery Centres or main charities to get in touch with her so she could pass on donations or assistance that had been offered.

The page was structured and formatted, with a set style and set of guidelines. There was recognition by the Administrator that many posts were being created which could overwhelm those using the page, thus posts become more systematised in order to try to make it faster, easier and clearer for people to understand how the page was functioning. For example, some of the posts had titles such as 'Important Post' or 'Urgent', to highlight the urgency or importance of a particular post. The

¹³⁰ 7.1.2013, 8:11am

Administrator provided page administration or usage guidelines: educating people about how to use the page and how it was functioning.¹³¹

There were requests by the Administrator for people to slow down, relax, and wait for more information – there were frequent posts that subtly told people that more information was being sought so they ought to relax and exercise patience, as illustrated by the below two posts.



In many posts, the Administrator was recommending another website that was providing good information or support or could help in some way, shape or form; such as the TFS page, a government site, a private Facebook page, or a fundraising link.

The page was constantly providing updates, stories, summaries and re-iterations of important information. There were numerous requests that people keep an eye on the page for more or updated information.

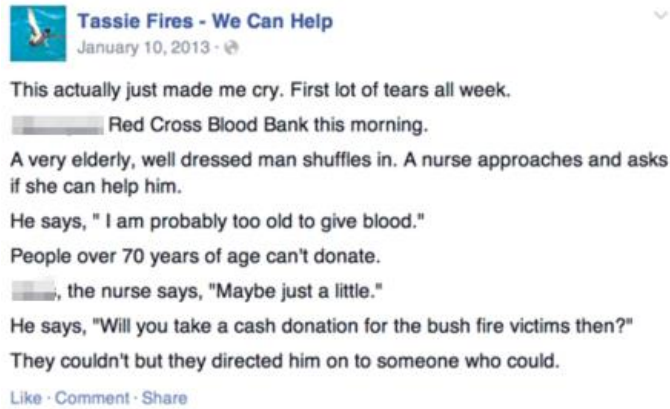
Many posts involved the Administrator giving a report, reflection or description of something someone had done to help or assist with the responses and recovery. Thus sometimes the Administrator would post about functional, pragmatic

¹³¹ During the disaster, one fast and effective way this was done was that a community member assisted with creating a cover photo that clearly explained the 'directions' for usage of the page.

¹³² 5.1.2013, 2:25am

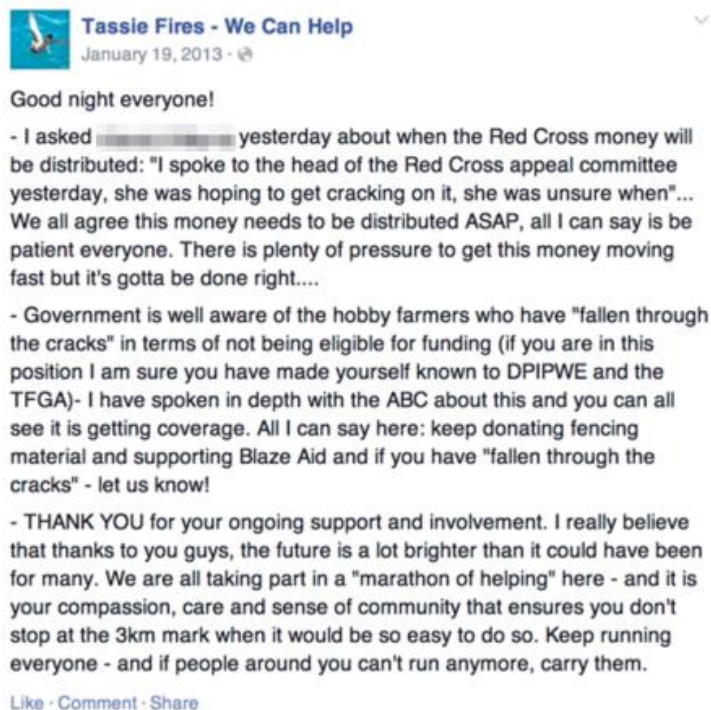
¹³³ 5.1.2013, 12:37am

issues, and other times, she would just post 'feel-good' or interesting stories that were designed to enhance engagement and motivation, such as the example below.



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Other updates included the Administrator's end-of-day, bedtime wrap up and summary: a general update or summary of any information that was important or current. The content of these served to wrap up the day's events, inform the users of the page that the Administrator was about to go offline, and to express gratitude for the day's work.



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¹³⁴ 10.1.2013, 2:03pm

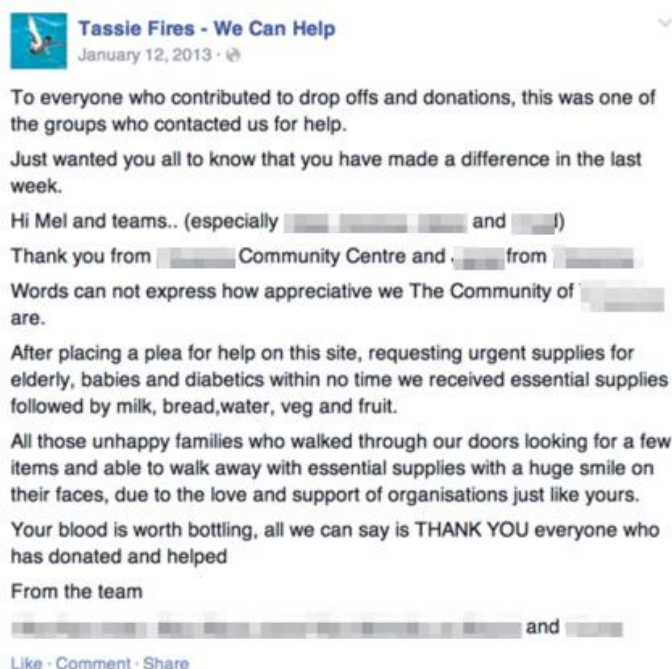
¹³⁵ 20.1.2013, 12:01am

There were posts by the Administrator that were encouraging people to be respectful, patient, kind, and gentle on the page; and to encourage or remind users about being well mannered. There was also a post that requested people not go into the area for the purpose of being a ‘sticky beak’. This was in response to growing recognition that once the roads had re-opened curious people were travelling to the affected area to take photos and survey the damage, rather than in order to help.

The Administrator regularly expressed gratitude or praise via the page, or shared gratitude or praise expressed by another individual or group, such as in the examples below.



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Occasionally there were posts containing positive feedback, praise, gratitude directed to the Administrator for her efforts (see below), but the Administrator only posted few of these, recognising that it was not necessary, appealing or appropriate to be engaging in self-promotion at this time.



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¹³⁷ 12.1.2013, 2.44pm

¹³⁸ 19.1.2013, 8:14am

There were also many ‘shout-outs’ to businesses and individuals for something they had contributed. There were posts with praise or gratitude for fire fighters, emergency crews, behind-the-scenes communications staff, authorities, and the random people who had stepped up and taken on an official role.

Frequently posts included the Administrator providing words of support and encouragement to people, and this included posts containing encouraging or supportive photos, and praise of fundraisers, and encouragement that people report back about how their fundraiser went.

The Administrator encouraged real action by users of the page. There was encouragement for people to not just think about who could potentially help, but to actively call them and create some action.

The Administrator emphasised the use of positive language. There were many positive or emotion-laden adjectives or language being used. Unlike some other pages, the Administrator used humour sparingly, although she did use it where it was appropriate. She wrote few personal posts.

The page provided health and safety information and reminders. For example there were posts reminding people to prioritise safety, think carefully and use common sense, such as when traveling, donating goods, or giving money. MAST¹³⁹ released boat safety information, and this was then posted on the page.

¹³⁹ Marine and Safety Tasmania is a statutory authority that manages the safety of recreational and commercial vessels 35 metres or smaller.



Tassie Fires - We Can Help

January 7, 2013 · 🌐

***** BOAT OWNERS PLEASE READ*****

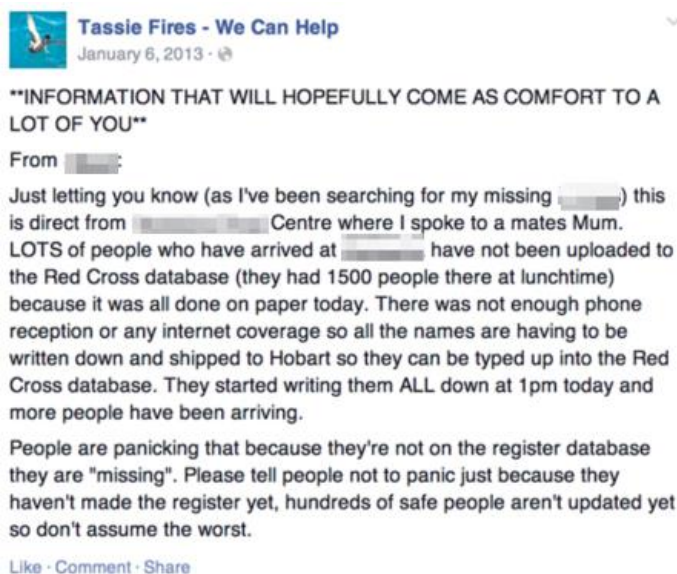
It has come to the attention of Marine and Safety Tasmania (MAST) and Surf Lifesaving Tasmania (SLST) that there is an increasing number of well meaning and well intentioned recreational boaters heading to the Tasman Peninsula to offer help in the current emergency. It is amazing to see the generous reaction of the boating community coming to the aid of those affected by this tragic natural disaster however there are reports of a number unseaworthy and inadequately equipped boats trying to make the journey to the Tasman Peninsula. Several vessels have already been escorted to safety.

MAST and SLST want to ensure that any boat heading to the Tasman Peninsula is adequately equipped and manned to be able to safely complete such a voyage. It is very important that any boat leaving a boat ramp registers the voyage with either Coast Radio Hobart or SLST on the

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There are examples of posts designed to try to get people to calm down and not assume the worst, as power was down and people were worried due to lack of communication from their loved ones (see below post). There were also posts with the Administrator actively promoting mental health and stressing how important it is. The only fire-related photos posted were in order to continue to raise awareness about just how devastating the fires had been to encourage further support. A goal was to avoid excessive focus on the fires and the damage they had caused, and instead focus on the possibilities for help and the goals that had already been achieved.

¹⁴⁰ Excerpt from longer post. 7.1.2013, 3:31pm



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The Administrator 'translated' or summarised long or complex documents and media releases – such as information from the Government, recovery newsletters or media releases, as well as summarising important information gathered during meetings of phone calls (see below).



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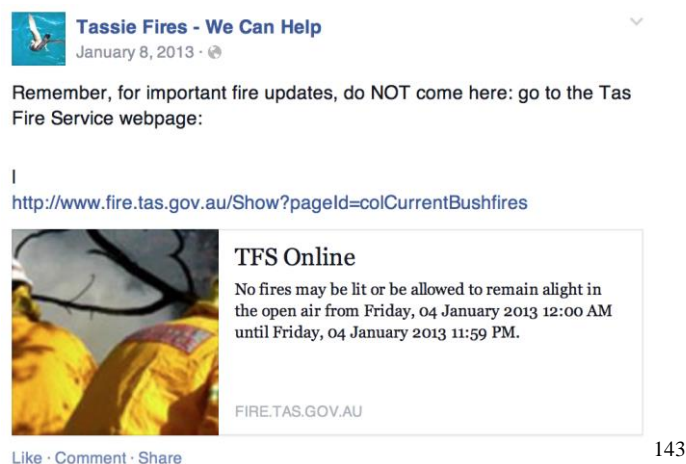
The Administrator attempted to manage rumours and control the reliability of information, and this was happening from early on. There were also a number of requests or statements by the Administrator that people needed to post facts and not

¹⁴¹ 6.1.2013, 9:47pm

¹⁴² Excerpt from a longer post. 28.5.2013, 5:32pm

rumours, to post only good quality information that they knew was correct, and to only post information that they knew was reliable.

The Administrator encouraged critical thinking where possible (such as encouraging people to think carefully about where they were donating money and if it was through legitimate channels), and using the most reliable and official sources when sourcing information. She reminded users that the highest quality sources of information were still the ABC and the TFS, and encouraged people or reminded people to stay up-to-date on the TFS page as the primary source of information. The Administrator was directing them away from TFWCH if they were searching for fire-specific information.

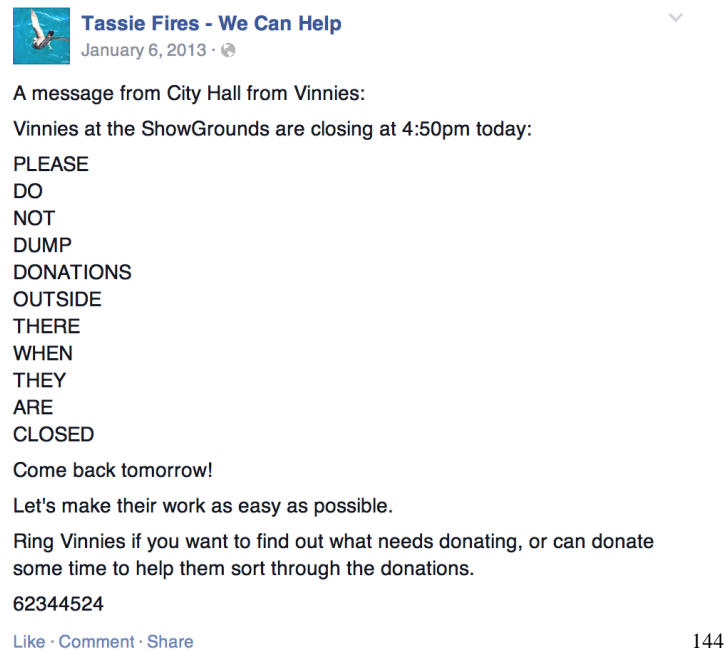


The Administrator attempted to fit into the overall response effectively. She was being conscious of being able to reduce the burden on the official responders if she could ring for information on behalf of everyone else, and then broadcast that information widely through TFWCH. There were posts with advice by the Administrator to the users of the page to not get in the way when trying to help.

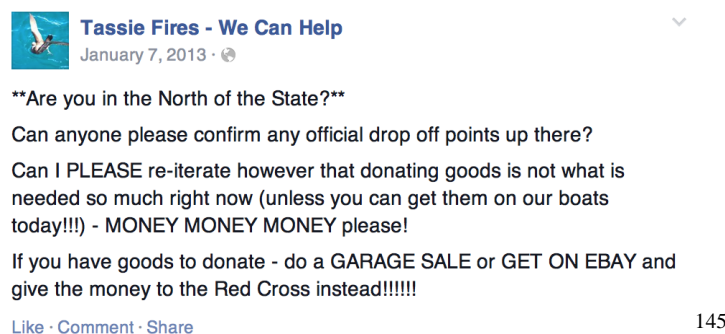
The Administrator attempted to manage and control donations. Frequently posts went on the page saying when saturation had been reached at a collection point, such as the example below. Also often there were requests for people to post

¹⁴³ 8.1.2013, 1:09pm

underneath the post what they would be bringing to a specific collection point in order to avoid unnecessary duplication.



There was constant reiteration that the donation of money was preferable to the donation of goods, even from early on in the emergency.



Highlighting that donating money via charities but also spending money in the area through tourism were the best ways to help was a goal of many posts. There was a suggestion by the Administrator that people sell the goods they wanted to donate rather than donating them, and then give the money to the Red Cross Bushfire Appeal instead.

¹⁴⁴ 6.1.2013, 2:22pm

¹⁴⁵ 7.1.2013, 8:14am

Often there was specification by the Administrator, a private citizen or an official within a post advising people about what sort of items were not fit for donation or differentiating between what was needed and what was not needed. There was recognition in many of the posts that the organisation of donations can be painful if there are not people present who are able to sort and organise them, and so there was further encouragement for people to sort donations before giving.

The Administrator and some helpers compiled a ‘key contacts’ document. This became a database and evolved into a website to be used in conjunction with the page. The Administrator compiled or advertised the central database of all the important phone numbers, websites and contacts for people to easily access, and this ‘key contacts’ document then evolved into the TFWCH website. This was what eventually turned into “Key Contacts” Google Doc, which then evolved into a temporary website,¹⁴⁶ which then evolved into the current TFWCH website.¹⁴⁷

Page function: A platform for sharing information

A key function of the emergent group was as a platform on which people could share and exchange information. The topics discussed and shared on TFWCH will be explored now. The range of topics was extensive, but they are explored, as they give valuable insight into just how diverse the needs of a community in a disaster are, which helps to explain why social media is a tool to which they turn.

Based on the intelligence coming through, many posts contained suggestions made by the Administrator or on behalf of other users of the page for how people could help. The Administrator shared specific *requests* for help with transport and

¹⁴⁶ This temporary website was created by a community member in Melbourne who simply saw a need for it, and made it – passing on the password for the Administrator to use the site and promote it if she thought it could be useful.

¹⁴⁷ The new website is sponsored by 13 local businesses, and is a professional, highly resilient site, that combines unofficial and official information – www.tassiefireswecanhelp.com

delivery, donations, information and/or assistance. These are discussed in detail in the following section.¹⁴⁸ On the page, the Administrator also shared specific *offers* for help with transport and delivery, donations, information and/or assistance, and these are also discussed in detail in the following section.¹⁴⁹

Information about the situation with car rental agreements and fines for people who had to abandon cars on the Peninsula when they evacuated was also shared on the page. On the page the Administrator also shared education about what to do if finding deceased wildlife that may be carrying offspring.

Posts encouraged people to have their say in the Bushfire Inquiry by putting in a submission, and posts informed people that the Bushfire Inquiry results were available from October 15, 2013.

On the page the Administrator also shared the link to a video with a bird's eye view or view from a car of Dunalley after the disaster, which showed the scale of the damage. Similarly, a link to a video made by a tourist who had been stranded, the purpose of which was to raise awareness of what was happening down in Tasmania in order to increase support. News stories about TFWCH were shared. This included the page and the Administrator being discussed in Parliament.¹⁵⁰

A volunteer had organised and donated TFWCH car stickers, and these were promoted through the page. On January 9, a Twitter account associated with the page was created and publicised through TFWCH. The page also advertised the new Tasmania Police Facebook page when it was created later in the year, and encouraged people to 'like' it.

¹⁴⁸ See Page Function: An Arena for Requesting Help

¹⁴⁹ See Page Function: A Marketplace for Offers of Help

¹⁵⁰ As mentioned earlier, the Administrator recognised the importance of getting the news media's attention. The Administrator was aware that the more coverage TFWCH had, the more followers it would attract, and the more people could (potentially) then help.

Frequently posts intended to provide support and information about the topics of physical and psychological health went up. Advice from a psychologist (requested by the Administrator) about mental health care in the immediate aftermath of the fires was posted on the page. The Administrator shared official phone numbers and details about places and resources that were able to provide mental and psychological support. Local poets or ex-Tasmanian poets posted poems on the page for hope and support and these were shared. There was a post explaining the phone numbers people could call if they were feeling isolated or needed help on the Peninsula since the roads had re-opened. Information about 'Rural Alive and Well'¹⁵¹ support services available to affected men in the area was shared on TFWCH.

Information was shared for those who may have needed help sourcing medication and hardware for diabetes, and information about tank water cleaning and safety information, and how to return safely to a damaged property was shared. Information was shared about how people with hearing loss or impairment could access emergency information, and the information that a nurse, general practitioner, psychologist and pharmacist were all available at the Dunalley Tasman Neighbourhood House was shared.

Post-disaster, recovery meetings were being run in the affected areas relating to psychological recovery (hosted by a trauma specialist); the recovery of children (hosted by Beyond Blue); and general recovery (hosted by Fire Foxes) – on the page, information and details about all of these were posted. The Administrator shared information about children's recovery: what is considered normal or abnormal, and when and where to get screened. TFWCH shared information about a controlled

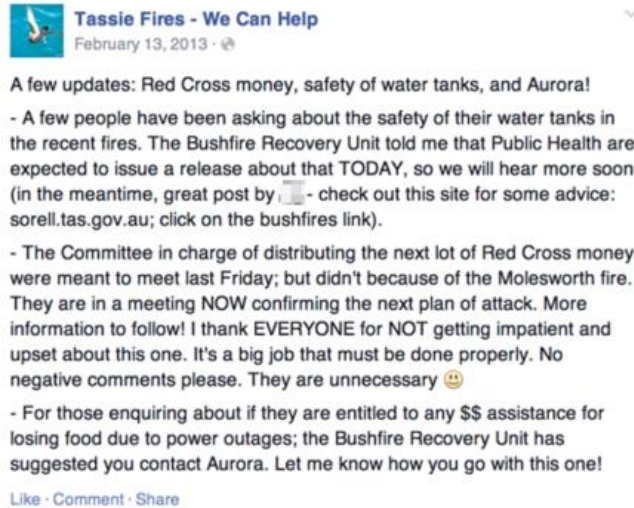
¹⁵¹ RAW (<http://www.rawtas.com.au>) is a not-for-profit suicide prevention and community wellbeing service operating in a number of different areas of Tasmania.

burn that had been planned and completed in May 2013 for an area close by the previously fire-affected areas in order to warn people about potential negative psychological reactions and to encourage them to prepare themselves and their children.

Some of the other users of the page who had experienced disasters before or worked in the area shared their experiences over the page.¹⁵² TFWCH shared advice from experts in the emergency management field or people with qualifications in disasters for how to handle the response and recovery. Suggestions from people who had experience about what items should and should not be donated, about what items are needed, and about how to go about the donating process were shared.

Information was shared for bushfire-affected people about what financial assistance from the Government they would be entitled to, and such information came from organisations and departments such as Centrelink, the State and Federal Governments, local Councils, the Australian Tax Office, Service Tasmania, and the Bushfire Recovery Unit. A range of companies shared information about fees being waived in regards to Internet and phone accounts – and so posts passed on this information over the page. News about the distribution of the Red Cross Bushfire Appeals funds was also shared via the page.

¹⁵² While an analysis of the comments sections to each post are beyond the scope of this thesis, unofficially it is observed that these shared experiences were valued by those reading them, evidenced by a high number of 'likes' and comments underneath these sorts of posts.



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Topics such as where to get phone and Internet access, and when phone lines would be back up were posted on the page. Updates and information from Aurora, the power company that owns and manages the power infrastructure was also shared.

A number of posts shared information about insurance, such as providing insurance company contact details, services being provided, and how to get assistance. Other posts shared information about banks – topics such as what services and support packages they were offering, locations in the affected areas, and opening hours.

Several posts passed on general information from the State Government (see below), including from Tasmania Police, or the TFS about Total Fire Ban Days that were in effect.

¹⁵³ 13.2.2013, 9:14am



Tassie Fires - We Can Help

January 6, 2013 · 🌐

Email to us from the Premier's Office:

Thanks for all the great work you've been doing to help communicate the latest updates about the bushfires and how the community can support those affected by this tragedy.

I'm a staff member for the Premier, [REDACTED], and I've just been asked if I could pass on the latest information about the State Government's support for bushfire affected communities.

A summary of the payments available are:

* Immediate cash assistance (\$200 per adult, \$100 per child, maximum of \$750 per family)

* Temporary living grants of up to \$8 875 (over a maximum period of 6 months) to assist with living expenses

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TFWCH shared posts about the topics of gardens, fencing, and the environment. It shared information about the Dunalley Tasman Neighbourhood House Garden Restoration Program for people who wanted to contribute or benefit from it, and some Blaze Aid statistics that demonstrate the extent of work they were doing.



Tassie Fires - We Can Help shared Brian Keightley's photo.

February 20, 2013 · 🌐

I seriously, seriously do not know where we would be without Blaze Aid - thank you Blaze Aid and of course, all hard-working volunteers!

Blaze Aid up-date - Total number of farms registered 104. Work has commenced on 47 of them. 16 farms have been completed. Still along way to go. Total number of volunteers to-date 310. Number of man/women hours work 1362. Total number of fencing cleared 84.3 klms. Total number of new fences completed 57.1. Keep up the great work guys.

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The Administrator shared information that *The Mercury* was collecting names and skills of people who wanted to help after the initial emergency, and there was encouragement via the page for people to register.

There were a large number of posts relating to general donations, including household items and clothing. It shared information about where fire-affected people

¹⁵⁴ Excerpt from a longer post. 6.1.2013, 5:40pm

¹⁵⁵ 20.2.2013, 10:35am

could get help from charities such as St Vincent de Paul's. People who wanted to donate were given information on the multiple drop-off points around the State.

Businesses in the area used the page in order to get messages out, either independently or with help from the Administrator (see below example). These messages included details of opening hours, offers of help and customer advice. A complete list of businesses that were back up and operating in the area shortly after the fires was created by a community member and then shared on the page.



A media release by Volunteering Tasmania was circulated saying that emergency services did not need any more volunteers and emergency relief organisations were only using volunteers who had already been trained.¹⁵⁷ This was shared. Volunteering Tasmania also used this opportunity to 'advertise' asking people to put their names down so they can be trained for future emergencies – this was shared via sharing their media releases, such as in the following post:

¹⁵⁶ 6.1.2013, 9:32pm

¹⁵⁷ A meeting with Volunteering Tasmania post-disaster confirmed that they had felt underprepared with how to manage spontaneous volunteers in this disaster. They are working on their strategies and policies for this type of disaster in future.



Tassie Fires - We Can Help

January 7, 2013 · 🌐

HAVE YOU BEEN WONDERING HOW TO VOLUNTEER? HERE YOU GO
From Volunteering Tasmania

If anyone is wanting to volunteer to help with Bush fire relief the best thing to do is to log details with Volunteering Tasmania by contacting us on (6231 5550) and we can take your details or you can contact the Red Cross. At the moment emergency relief organisations are using volunteers who have been trained for emergency relief and at this stage they do not need any more volunteers but Volunteering Tasmania are able to take details without a guarantee of you being contacted, as it depends on what help is currently needed. We are also asking those contacting us if they are interested in being trained volunteers for the future i.e. with SES, Red Cross, Salvation Army or Tas Fire and we will provide the names and contact numbers to those services at a later date for potential recruitment.

[Like](#) · [Comment](#) · [Share](#)

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A number of posts were shared on the page that contained information from formal responders who wished to indicate that they did not need assistance or volunteers from the general public. Information came through about housing, such as posts that City Hall and the Government were confident they had enough accommodation available for those in need and did not need any more assistance from the general public. At one point, Tasmania Police advised that no help was currently needed. Similarly again, there was a post that shared a message from the TFS (see below) that everything was under control and they did not need any help or donations or assistance, or suggesting better places where donations could go than fire stations.



Tassie Fires - We Can Help

January 4, 2013 · 🌐

Official statement from TFS:

There is an incident management team in place for the TFS fire fighters and volunteer fire fighters. If the men and women of the TFS need any provisions or help, they are in contact with their supervisor who is dealing directly with any of those requests and they are being met. The TFS is on top of all provisions and needs of the fire fighters and volunteers. If people on the Facebook page are wanting to help, the best way is to contact the SES emergency management unit SATURDAY MORNING (Spoke with State Police - no help is currently needed at this point for provisions as evacuation is still taking place) however in the morning please call the SES 6230 2707 to find out what you can do and where to donate goods)

Great! We have a game plan for tomorrow! Thanks to everyone who has helped so much so far.

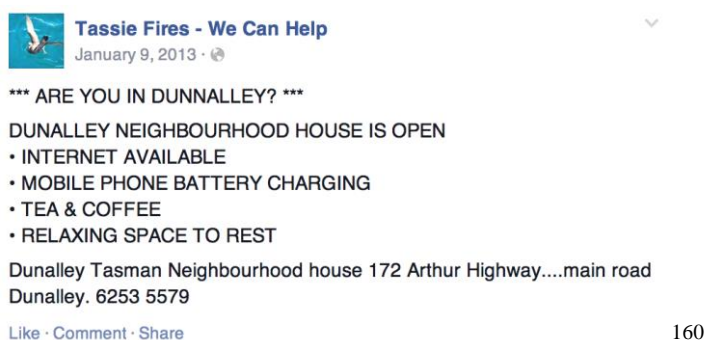
[Like](#) · [Comment](#) · [Share](#)

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The fires themselves were a topic of some discussion. On the page, the Administrator shared fire information – but only by linking to a specific fire alert page on the TFS website. The Administrator was providing links to the TFS page about other fires as well. There were a couple of posts about bushfire preparation and preparedness.

Information about the emergency hotline number that could be called to look for a person who was missing was shared, as were details about the Red Cross website, which could be used in the search for a missing person. Information was also shared over the page about the fact that Tasmania Police were calling for all people to register that they were safe, and TFWCH shared the way to do this.

TFWCH also broadcast information for people in the area about where they could go to meet the private boats and collect donated goods, and detailed the places they could drive to on the Peninsula to get help (see example below), as well as providing information about the locations and times of official community meetings, events or lunches.



People were understandably concerned about the state of properties and infrastructure in the affected areas and the situation in the affected areas. Information passed on from eyewitness accounts was shared over the page.

¹⁵⁹ 5.1.2013, 1:13pm

¹⁶⁰ 9.1.2013, 10:14am

Some private citizens provided updates about what they were currently doing to help, keeping everybody else in the loop about their activities, reporting back on what they had seen and what they knew, and these updates were shared over TFWCH.



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There was, therefore, a wide range of types of information that were being shared over the page.

Page function: An arena for requesting help

The Administrator was posting a large number of status updates relating to people who needed help. This theme begins to explore all the requests for help that were flooding TFWCH.

Requests for the donation of specific items were prolific. There were extensive appeals for the donation of clothing, food, general necessities and household goods to specific locations (such as to a private collection point, jetty, specific boat, individual person, charity, fire station or recovery centre), as well as for more general donations to be taken to specific places such as to St Vincent de Paul's.

Requests included items relating to clothing, necessities, furniture or household goods. Examples included requests for wetsuits, surf boards, school

¹⁶¹ 6.1.2013, 12:29pm

uniforms, water drums, items for children, fishing rods, specific sized clothing, beds, linen, sunscreen, long-sleeved tops, items for babies, craft items, hay, fresh food, non-perishable food, safety equipment, hats, shoes, dog food, mattresses, bunk beds, hobby items, treasure chests, cake tins, adult books, children's books, and books for Dunalley Primary School. The needs of the community were varied and diverse.

At one point the Hobart City Council asked for the donation of an air pump to blow up mattresses. There were also specific requests for mechanical, technological or electrical items, for example, water tanks, fridges, freezers, televisions, small kitchen appliances, electric fry pans, electrical goods, wood heaters, carpentry tools, woodwork tools, building tools, sandwich makers, blenders, and bread makers.

People were asking for the donation and lending of items relating to the clean-up and recovery, such as the use of a chainsaw for a team removing burnt trees and creating firewood,¹⁶² and for the donation of large water containers to take into the affected areas. Due to the lack of electricity for quite some time, there were requests for the donation or loaning of items relating to power-free refrigeration, such as for the donation of ice packs to the Food Bank¹⁶³ and for help with the donation and delivery of ice to an area where people were unable to drive to the collection points.

A number of requests were made for items relating to information technology and communication. There were appeals for old laptops to be donated to repair for a family, donations of old mobile phones as part of a general collection to be

¹⁶² The irony of the situation is acknowledged. In the winter following the fires, people needed (as per usual) firewood for heating. There was ample wood in the affected areas that could be chopped and used for this purpose.

¹⁶³ The Food Bank (<http://www.foodbank.org.au>) is an Australian-wide not-for-profit that provides food to organisations and community groups who provide meals to those that are in need.

distributed to those who had lost theirs in the fires, and a request for information technology items for a professional who had lost everything in the fires.

Appeals for the donation or loaning of items relating to livestock, pets and animals were also prolific. There were requests for help with specific hay donations that were urgently needed, or for the larger hay drive – to the Showgrounds, through the TFGA or to any of the other private livestock feed collection points. Another way for people to help was that they were asked if they could offer help with livestock by contacting the TFGA, who were in need of fodder.

There were also requests for the donation or loaning of dog kennels and dog pens, and cages for pet ferrets and cockatoos, and the Royal Societies for the Prevention of Cruelty to Animals (RSPCA)¹⁶⁴ asked people to contact them directly if they had any donations or supplies to offer. There were requests that people contribute to a collection of specific horse gear, horse equipment and halters. There was also a focus on native animals, with request for food for wildlife in the affected areas, the donation of sheets to make pouches for wildlife and the donation of drinking bowls and pots for wildlife.

There were numerous requests for help with *tasks* relating to livestock, pets and animals, such as with feeding some dogs that had been affected, checking on some pets that were trapped indoors in the affected area, and helping to find temporary housing for pets and agistment for livestock. There were also requests for help with injured, sick or burnt animals, such as requests for help with a sick horse, and getting a burnt possum from Somers Bay Road to the emergency vet clinic at Dunalley.

¹⁶⁴ The RSPCA (<http://www.rspca.org.au>) provides services for animals to prevent cruelty, sickness and starvation, and assists with animal care and adoption.

The page was operating as a lost-and-found service for pets and livestock. People were asking for information about the whereabouts and safety of specific horses in the fire-affected area, as well as asking for help with locating a stranded pet or a lost or missing pet, or asking if anyone had information about a pet that they had found.

Access to fuel was a major concern for volunteers. There were requests for the donation of fuel or fuel vouchers to the volunteers in charge of the fodder drive, as well as for other emergent groups and other volunteers. Generators and batteries were also in heavy demand – with several requests coming in from either private citizens or businesses in the area that had lost power.

There was considerable need for items relating to fencing, gardening and repairs, with appeals for the donation of fencing tools and gear to help with fencing, either on behalf of Blaze Aid or for private groups or citizens. Blaze Aid also requested commercial sized pots and pans to assist with the cooking to feed the volunteers. There were a number of requests for general tools to help with repairs and the clean-up from private groups or citizens, and there were requests for donations to plant collections and garden projects, for items such as compost, pots, mulch, and plants.

A substantial amount of fundraising was underway early on in the disaster. There were requests for the donation and loaning of items relating to fundraising – such as for items to be raffled, fundraised with or auctioned off at a fundraiser. There were also requests for assistance with logistics and assistance with fundraisers, such as the loaning of portable toilets for a fundraiser, the loaning of a BBQ for a fundraiser, and for a band to play at a fundraiser and get-together in Dunalley.

A small numbers of items relating to health were also in high demand. For example, there was a request for the donation of Autism-specific toys to be donated to Autism Tasmania, an asbestos suit and the request for the donation of suitable, safe clothing or personal protective equipment like masks for people helping the locals fight fires and clean up in the fire-affected areas. There was a request for a nurse or doctor to provide some help in one of the affected areas, as well as a request for mental health care workers to go down into the area and assist with people's psychological wellbeing.

Items relating to storage were being asked for too. St Vincent de Paul's requested the donation of good quality cardboard and removal boxes to the Showgrounds as they were in need. Other groups were requesting the donation of boxes or containers for packing up donated food that would be taken and handed out at the recovery centres.

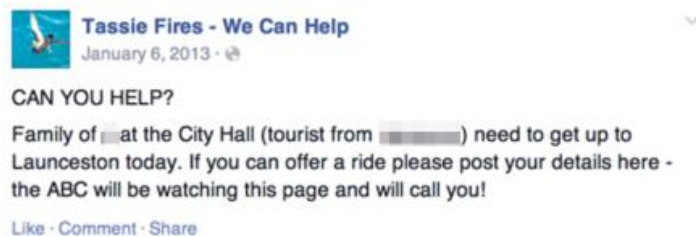
There were requests for the donation of specific and targeted items for children. One splinter group (see below) was a registry that was created on January 11, 2013, which matched specific requests for specific children with a contribution from a self-nominated donor.¹⁶⁵ Some posts related to requests or updates about the registry.

¹⁶⁵ This group was started by a community member who had been following TFWCH, and wanted to help in a way specifically for children.



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There were a number of requests relating to transport (see below post). People needed help with moving some people and/or pets out of the affected area, or for help with transporting people who had been evacuated and now needed help to get to different parts of Tasmania, especially tourists who had return boat or plane trips to meet. There was a request from a fire fighter needing a boat ride into the affected area urgently.



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A flotilla of boats was organised to deliver needed goods into the area. Owners with larger boats that could withstand poor weather conditions were asked if they were able to take their boats out and continue the deliveries to the Peninsula after the weather became too rough for smaller boats to head out there.

Appeals were made for people with specific skills – such as for truck drivers capable of transporting flammable goods, loader operators or volunteers who could

¹⁶⁶ 13.2.2013, 9:11am

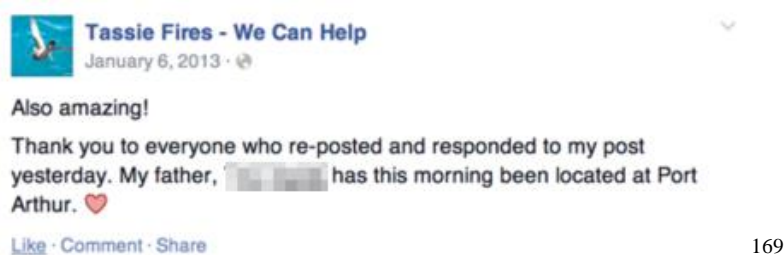
¹⁶⁷ 6.1.2013, 8.28am

bail hay, and people who could help with either the moving and delivery of donated livestock feed, or any other larger donations.

There were requests for information about the resuming of services. People were looking for information relating to affected property – requesting any local information available about if a house, property, premises or building had been damaged, as illustrated in the post that follows.



A number of people were also missing for quite some time and were not accounted for or could not be found. People were seeking advice, tips or information about someone they were looking for who was missing (see below). There was a request for information about some of the fire fighters who were known to have been working in the affected areas and who were hard to contact.



People were also using the page to find information on transport options, such as one user who was requesting information and advice on how to get medication to someone in the fire affected area, as illustrated in the following post.

¹⁶⁸ 5.1.2013, 7:14pm

¹⁶⁹ 6.1.2013, 12:05pm



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A couple of requests came in from people who were looking to return an item they had borrowed, such as generators, or water containers.



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Requests for assistance with housing and evacuation sleeping arrangements were coming in to the page. There were requests for housing or a caravan for a particular family or individual who had lost their home, as well as the early requests from the Government for people who could offer housing to call a specific central government number, or go to a specific place to register. There were requests relating to boating:

¹⁷⁰ 5.1.2013, 12:21pm

¹⁷¹ 25.2.2013, 11:50am



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Volunteers were being asked to fill a range of jobs. A request was made for a volunteer to help by being a receptionist for Volunteering Tasmania.¹⁷³ A couple of other similar registries went up, for example, a Council registry was collecting names and numbers of people with skills to volunteer and there were requests and encouragement for people to register.

There were requests for assistance with the clean-up and rebuild. There were requests for help from electrical engineers or electricians, as help was needed on a fire-affected oyster farm, as mentioned in Chapter 4.¹⁷⁴ A request came in for help from someone who could wash down a roof in the affected area so that water tanks were safe in addition to doing some indoor cleaning.

Requests for assistance with broken or damaged items also appeared on the page. There was a request for help with fixing a smashed windscreen on a volunteer truck, one for help with repairing a car damaged during the fires (belonging to someone who had lost everything else), and one for help fixing a boat so the owners could complete another delivery to the Peninsula.¹⁷⁵

A few requests for assistance with employment came through the page. For example, workers were needed to help put new oyster baskets together to replace thousands lost in the fires. There was also a request for help or offers of finding

¹⁷² 6.1.2013, 9:35pm

¹⁷³ Later correspondence with the public relations company of Volunteering Tasmania suggested that around 50 phone calls were received for the position. Indeed a post went up on TFWCH at 9:33am on January 9 to say the position had been filled and no more phone calls were needed (the original post was made at 10:59am on January 7).

¹⁷⁴ See Chapter 4, An Anecdotal Introduction to *Tassie Fires - We Can Help*.

¹⁷⁵ It is known that most of these issues were solved.

employment opportunities for a family who lost their business when a timber mill burnt down, leaving about 35 people out of work.

There was a request for businesses to contact the Salvation Army with what they might be able to contribute, and a request for businesses to contact a particular local politician who would then pass on the Red Cross number, if they wanted to contribute.

There were requests for people to contribute cash donations. As previously discussed, the Administrator regularly advertised ways that people could make a cash donation – such as through the Bendigo Bank, Salvation Army, Lions Clubs, Rotary Clubs, Westpac Bank, The Red Cross Bushfire Appeal, and private churches, and she strongly encouraged them to do so. The Administrator also encouraged people to help by donating money to an online collection for a local service station, which helped people cover fuel costs. Other ways to make cash donations were encouraged, including by contributing to cash collections through websites for a specific person or family.

The fires gravely affected tourism. Thus people were also strongly encouraged to go and spend their tourism money in the area as soon as it was safe and appropriate to do so. There were suggestions for how people could spend tourism dollars in the area after the initial disaster had passed.

There were a number of requests for information from journalists wanting to speak to people in the area in order to write a story on them for a magazine story, television, news report or community newspaper.

There were a large number of requests for assistance in the evacuation hubs, recovery centres, or collection points for donations. There was a request for help with cooking food for volunteers and people stranded, and an appeal for a

hairdresser to come to the recovery hub and do hairdressing for fire-affected individuals. There were invitations for volunteers to help at one of the childcare centres that had been set up, for volunteers to help at the Sorell RSL with a range of tasks, for volunteers to head down to a local jetty and help lead and organise the boats heading out in the flotilla, and for volunteers to help sort and organise donations at St Vincent de Paul's.

There was a request for someone to travel down to the Sorell RSL and fix a broken air conditioning unit, and an appeal for someone to take on the job of being the lunch coordinator out at St Vincent de Paul's for the volunteers. There was a request for volunteers to help put together food and supply packages at a local pub, which were to give to people when they were evacuated via the Food Bank, and also a large number of requests for volunteers to help sort a collection of donated goods at a specific drop-off point.

Page function: A marketplace for offers of help

One of the other main functions of the page that emerged as a theme in this analysis was as a central online marketplace for people to make offers of help. Through the Administrators posts, information could be gleaned about what sorts of offers people were making as they attempted to help with the response and recovery. Those offers were organised and categorised within this overarching theme.

Many specific loans and donations were offered over TFWCH. There were many offers of donations relating to children such as offers of donated toys; toys, entertainment or specific supports and items for children on the autism spectrum, or for children with other disabilities, and offers of baby-packs for expecting mothers who had been affected by the fires.

There were also many offers of donations of items relating to the Primary School that had burnt down such as stationary, books, learning materials, backpacks, library books, and teaching resources. There was also an offer of the donation of a new stained glass window for the new School. There were offers of donations of items relating to fundraisers, such as items that could be auctioned or raffled.

A number of items that were mechanical, technological or electrical in nature were made available over the page. For example, there were offers of donated vehicles, donated computers, computer monitors and laptops, the loaning of a generator, portable toilets if needed, a water tanker if needed, and numerous offers of household appliances such as fridges, freezers, televisions, clothes dryers, and washing machines, DVD players, CD players, and dishwashers.



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There were offers to repair old tablets, mobile phones or computers to then donate to the local primary school or fire-affected individuals, and the offer to help with the retrieval of files and hard drives from burnt computers.

There were several offers of the donation of items relating to clothing, necessities, furniture and household goods. Offers included donated underwear from an Australian clothing manufacturer, donated books for children or adults, donated kitchen goods from a home wares company, and the offer of the donation of Bibles for evacuation centres or hubs if required. There were numerous offers of more

¹⁷⁶ 17.1.2013, 12:06pm

specific clothing such as wedding dresses, corporate attire, and school uniforms, as well as speciality items for children, larger men, particular sized women, handbags, shoes, hats, clothing for particular sized babies, and general clothing.

There were offers of the donation of indoor and outdoor household items such as kitchen utensils, pots, pans, fry pans, Eskis,¹⁷⁷ cutlery, towels, linen, bedding, garden tools, toiletries, makeup, and sunscreen. There were also numerous offers of the donation of furniture, such as beds, baby cots, baby carriers, bunk beds, high chairs, dining room tables, office desks, chairs, sofas, recliners, outdoor furniture, bookcases, coffee tables, couches and even a piano. A number of items relating to livestock and pets were offered up for donation as well. These included items such as horse halters and other horse-related equipment, donated pet food, and even the donation of free animals – including puppies, working dogs, kittens, chickens, cows, and ponies. Housing and accommodation options were put forward for pets, and offers of housing for people requiring accommodation for both them and animals were made. A pet crematorium offered discounted cremation services for pets if needed.

Items relating to the early stages of the rebuild and recovery were offered as well. There were offers of discounted shipping containers for the purposes of storage, re-starting a business, or temporary housing. There were also specific donations offered of paint and paintbrushes, some polypipe, and the donation of personal protective equipment for people to wear during the clean-up.

A couple of offers came through that were related to the psychological recovery and support for those impacted, such as the two posts below.

¹⁷⁷ Eskis are portable insulated containers for food and drinks.

 **Tassie Fires - We Can Help**
January 6, 2013 · 

Wonderful message from  (she will post under here so you can inbox her):

Hi everyone,

My thoughts are with everyone affected by the bushfires and those who are working tirelessly to defend property and assist others.

While I can't be physically present to offer assistance at the moment I am thinking of those people who are dealing with loss and uncertainty. As a psychologist, I'm available to chat to people via phone or FB message and offer any support and counselling needed. I specialise in working with children and am more than happy to speak with families who have little ones who are confused and showing signs of trauma, even if they have not been directly affected by the fires. I can't offer a lot but I am here to listen and can offer advice if needed. Send me a personal message if I can help. 178

 **Tassie Fires - We Can Help**
January 5, 2013 · 

Important post from :

For information on disaster recovery, the Australian Psychological Society puts out an info page on just that.

Those in the fires, family and friends worried about loved ones, and those in the general community will be affected in different ways and each person will deal with things differently. A lot of people will be stressed and anxious right now - both in the fires and those watching and waiting to hear news and be able to help. It's important you find healthy ways to manage that as best you can. If you need support, ask for it (in most cases a listening ear, a hug, or just having someone there is all it takes) and if you find you are just not coping, please seek help.

[http://www.psychology.org.au/publications/tip_sheets/disasters/...](http://www.psychology.org.au/publications/tip_sheets/disasters/) 179

These included the offer of a donation of flowers to those affected, either directly or to the evacuation sites and recovery centres, and the offer of the donation of a collection of photos of the affected area that were taken just before the fires swept through if any locals wished to have them.

Several offers came from owners of buses, taxis, private cars and boats willing and offering to transport people or goods to any location or to a specific location. There were also offers of a free courier service, and the use of trucks, trailers or cars offered if needed. Private businesses offered to transport goods that had been bought in store and then donated. There were offers from people located on the Peninsula to drive goods around to an isolated local community from the jetty at which the goods were delivered to by boat, or to take people in or out of Dunalley by

¹⁷⁸ 6.1.2013, 8:23pm

¹⁷⁹ 5.1.2013, 11:00pm

boat, or to take people in or out of other isolated local areas by boat, or to take their jet ski out to help people see what was happening in the affected area.

A person with sailing skills offered to help man a ship if any boat owners needed extra crew, and many people were offering to take his or her boat out to deliver supplies to any location. Some private boat owners communicated via the page that they were setting off to deliver supplies, and people were encouraged to get in touch if they needed any specific items that could then be sourced and delivered.

There were also offers of assistance with the transport or delivery of items relating livestock, pets and wildlife, with numerous offers to assist with the feeding, accommodation or transport of livestock and transport for pets.

‘The offer of information’ was one of the key themes in this analysis. This was a little different to the previous offers though; in that people did not ‘offer’ information and wait to see if they had any takers; they just simply brought it straight to the page and it was exchanged and traded immediately.

There was only one clear offer of ‘information’ as such as something that could be ‘taken up on’, and that was that an individual in the affected area was offering to go and look at properties for people in order to see if the property was still standing, and this offer included taking photographs of the property to send to the home-owner, as seen below.



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There were numerous offers of helping with children, such as free child-care or child minding. A child psychologist also offered free advice or support to those families who needed it.

There were several offers of assistance with the clean-up, repairs, manual labour and defending properties. There were offers of labour, tools or both to assist with the clean-up or repairs, offers of assistance to help with making fire breaks or anything else that might be needed for defending property from fire, and offers of assistance with tasks involving manual labour, man power, tools and trucks. There were some offers of assistance with repairing burnt or damaged jewellery or medals. Some offers specifically relating to fire fighting came to the page. There were also offers of assistance from volunteer fire fighters willing to answer people's questions if needed.

People were offering assistance with housing or access to showers and electricity. Individuals were offering accommodation options such as the loaning, sharing, or renting of a house, rental property, caravan, or land. Official groups and organisations were also offering accommodation options, in addition to temporary housing being offered from a company specialising in emergency housing. A hotel in the fire-affected area that had located and connected a generator was offering help

¹⁸⁰ 11.1.2013, 2:48pm

with access to showers, water, and electricity for charging phones for anyone in the area.

Some offers of assistance with medication, physical and psychological health and recovery and general wellbeing were also evident, such as in the below post.



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Hospital or pharmacies were offering to provide people with scripts and medication where possible, and there was an offer of the free filling of scripts at the main hospital in the capital city of Hobart. Assistance for people with diabetes was offered, as was help to those with disabilities for housing or disability aids, or any sort of assistance for adults with disabilities. Offer of help were made for psychological assistance for people concerned about their children's wellbeing, and other psychologists were offering free psychology consults. A mid-wife was offering free telephone advice for pregnant, pre- or post-natal women.

One particular example of a splinter group that offered help was a group of massage therapists, which organised to deliver free massages in the evacuation hub. This was up and running by January 12, 2013.¹⁸² The group was still giving massages on February 2, 2013.

Some offers came through the page for free legal advice and assistance for anyone who needed it. A few offers relating to employment came through the page too. These included the offer of a job and accommodation for anyone who wanted a

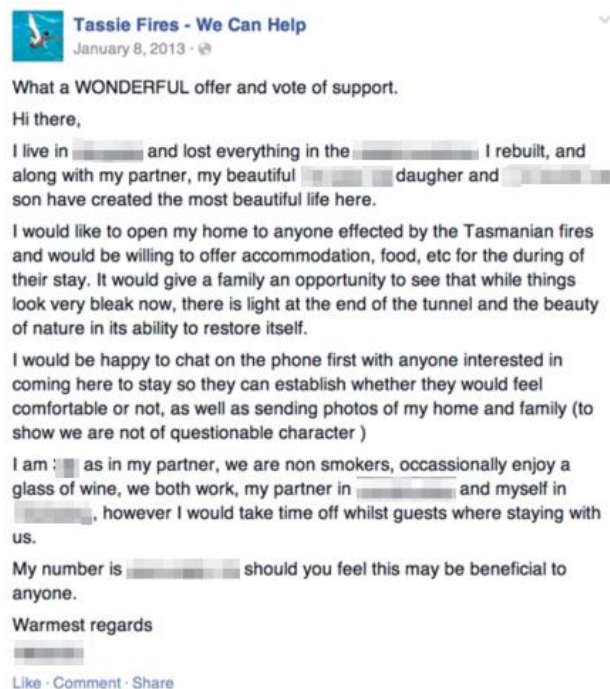
¹⁸¹ 5.1.2013. 11:49am

¹⁸² The group of massage therapists was another splinter group, which had been set up when a community member had been following TFWCH, and then decided to use her skills to help.

sea change after the fires, and the offer of help with recruitment for people looking for work.

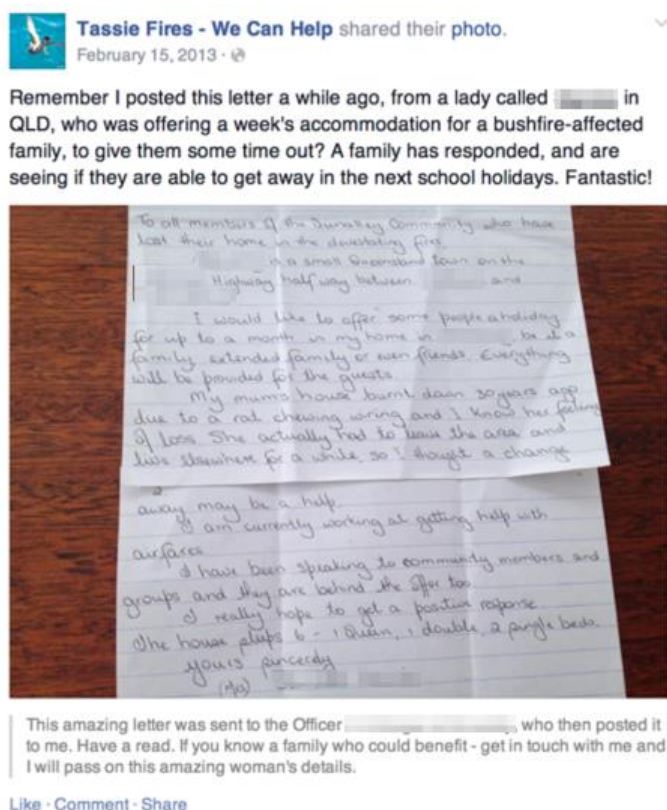
Offers for assistance with the rebuild were coming in to the page too. There were offers for discount storage options, building items and services, and free architectural consulting. Free financial advice and assistance was offered, as was assistance with working through the insurance process, and assistance with home loan applications or construction loans. Various tradesmen offered assistance with the collection and installation of items such as sinks and stoves into houses that were being rebuilt, or free assistance with plumbing and disconnecting downpipes, and an electrician group offered to help with reconnecting houses once the power had been restored.

There were a few people who offered holidays and entertainment options to people affected by the fires. Some of these were offers of complete holidays packages to people, such as in the below post.



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Some of the examples of entertainment options offered included entertainment for teenagers by taking them out for a day at the cricket; entertainment with free tickets to a travelling circus that was performing in Hobart at the time; entertainment with free tickets to the rally car event, and free children's entertainment by local performers. An offer to host a kids birthday party for a fire-affected child who may have had one coming up that could no longer go ahead even came in, as well as an offer of entertainment with an expensive, sponsored table at a local charity ball, as well as offers of fully-funded interstate holidays, as illustrated in the post that follows.



Discussion

A number of themes recur throughout this entire thesis and inform the four research questions.¹⁸⁵ To prevent unnecessary repetition, this discussion section will

¹⁸⁴ 15.2.2013, 6:08pm

simply provide a short summary of the results of this chapter. An in-depth discussion of each individual research question, drawing information from each data set, will appear in Chapter 9 of this thesis. Furthermore, a diagram bringing these ideas together is presented in Chapter 8 (see Figure 8.1).

The analysis of the overarching theme *the emergency* has given context to the disaster. It has revealed the full scale of the bushfire emergency, with large-scale loss, devastation, confusion, trauma and stress. People had been psychologically impacted and were in need of psychosocial support. The fire was of sufficient magnitude to capture people's attention, and the community became heavily involved.

The data illustrate that the needs of the community were many and varied; with people needing help, supplies and services, and that the official response was perceived to be unsatisfactory and slow. Whether or not the official response was deemed adequate is a difficult question to answer – but as is usually the case, the formal responders were stretched, due to the size of the disaster. Furthermore the small number of resources available in Tasmania when disasters occur was a factor. This meant there were gaps in the response and recovery that people were seeking to fill, which contributed to the emergence of an online group. This analysis has shown that communication was difficult, with phone towers down and power out.

Many people were not prepared, and were trapped due to the roadblocks and geography of the area. The community needed items like generators, and the fact that the power was out and there was a perception that the power would be out for a long time also meant people were asking for supplies. Due to the geography of the

¹⁸⁵ See Chapter 4, Aims and Research Questions

affected area, the general public were able to get in and help independently when normally roadblocks would be in place and access would be denied.

The analysis of the overarching theme *page function: a marketplace for offers of help* has shown that the wider community felt connected to the affected area and were eager to help. The public wanted to mobilise and help however they could, and they were generous with their resources. People wished to help directly, and specifically, and to self-organise, and social media was enabling them to do this. This is in direct contrast to the spontaneous volunteer who arrives, awaits instructions, and is potentially a drain on resources. These volunteers were empowered, and with some guidance, knowledge and information, were able to take initiative and enact their own assistance. This analysis has shown that people were organised, calm and peaceful.

The page had a high media profile and a large following online.¹⁸⁶ It is argued that a large following is important for maintaining community interest and investment in a project like this, and that it is vital for the ongoing sustainability of these sorts of emergent groups. It is proposed that the emergent group and the social media platform were functioning as advertisers to raise awareness about events that were occurring and what needs were ongoing.

The platform of social media had excellent functionality – it was seen by users of the page as a surprisingly positive and useful platform, which facilitated the creation of new linkages and social networks, and the revitalising of old social networks in order to problem-solve specific issues. People felt that because of social media they had a voice and an avenue by which to seek help and offer help.

¹⁸⁶ This was explored in detail in Chapter 5. See Page Likes.

There is evidence in this analysis of interoperability as official agencies and other groups were utilising the page as a broadcasting tool to amplify their message, or as a way to monitor the actions of the public. It is argued that this is a rare example of community and official collaboration rather than a command-control style of emergency management.

The group was flexible, spontaneous and able to improvise in order to solve a range of problems. The page was seen as a useful medium for gathering information, and people indicated that they felt informed. Information was being gathered from as many different sources as possible – both unofficial and official sources.

This analysis has shown that the page was resource heavy for the Administrator to run, but because of this effort, the page provided a constant news service, which the community indicated that they appreciated.

This analysis has demonstrated that the page offered hope and inspiration to people, and the Administrator encouraged positive emotions and provided psychological support. The quotes utilised in this analysis include comments of appreciation from those affected in regards to what the community was doing and what the community could achieve. There was a high sense of community spirit and teamwork.

An understanding of how the Administrator was running the page could be learnt from this analysis, by examining the overarching theme *page administration and management*. Information was being gathered from all possible sources; people were being directed to many different sources of information, and the Administrator was engaging in networking with useful sources of information, such as not-for profit organisations. The Administrator was providing direction and guidance to the community on what to do and what not to do, addressing rumours, and giving

updates on what people were doing out in the field. The Administrator was providing leadership in order to establish the right culture, tone and atmosphere on the page. Many posts were focused on positive reinforcement, encouragement and gratitude. The Administrator was carefully using language to manage the emotions and actions of people on the page, with an overall focus on being safe, effective, useful and contributing to the official response.

One of the main roles of the page, as seen in the overarching theme *page function: a platform for sharing information* was as an information exchange, and a range of different topics was being shared. There were physical, procedural and social needs. The range of not only official information that was shared by the Administrator and users of the page, but also local, unofficial information too, is noticeable, concerning both the response and the recovery.

A number of the topics being posted about potentially helped people to experience a more rapid or effective response and recovery. This analysis has given a good insight about what sort of information people search for in a disaster, and a key point here is simply the sheer variety of information being shared. The benefit in having an information broker like the Administrator for TFWCH to separate the less important content (such as discussion and reaction to events) from the more important content can be seen.

The analysis of the overarching theme *page function: an arena for requesting help* has also given insight into the type of help people were requesting over the page. This can potentially help the community to be better prepared for the next disaster event. People were taking the opportunity to be able to ask for specific items over the page and many different items were being asked for. These requests were both from directly impacted people needing items or specific information, and

people who were trying to help utilising the page to assist their volunteering activities. While it cannot be confirmed that all requests were fulfilled, in a number of cases there is evidence and feedback of when solutions had been found. Some offers were useful and some were not, which suggests that the community needs some education around what is appropriate and what is not as far as assistance in a disaster is concerned.

This analysis has shown that people offer specific items based on their own capacity, resources, interests and skill sets, so potentially there was a broad and diverse resource to draw from. This is highly appropriate, as in a disaster situation the affected community is also a wide and diverse group with a variety of needs. Due to the page being an avenue to offer help, people were provided with a medium through which to ask for help and offer help that they may not otherwise have had.

In this case study, if the Administrator was not sure of the veracity of a post she would ask the users of the page for more information. While it is understood that emergency services need to be careful with the information they disseminate and cannot crowd source in the same way as community members can, this analysis has shown that social media does enable the re-correction of incorrect information quickly. It is the speed or accuracy trade-off that emergency services battle with, and it is argued that to some degree, with the use of social media, that dilemma is no longer a dilemma any more: both can occur. This is one of the strengths of the online environment; due to its fluid nature, it is easy to change and update information.

With an understanding of the demographics of the fans of the page, and the sort of content being delivered by the Administrator, the results of the questionnaires that were administered will now be examined, in order to form a better picture of the functions and roles of this online emergent group.

6. Chapter 7 – Quantitative Analysis of Survey Data

Introduction

In this chapter, the three questionnaires that were administered are introduced. The questionnaires were designed to explore a number of issues such as which sources of media were most important to users of the TFWCH Facebook page and how people discovered the page initially. The questionnaires were also designed to explore the spontaneous volunteering behaviours of the respondents, by examining which activities they participated in, and if the TFWCH page had an impact on their decision to do these activities. Bushfire-affected individuals were asked why they were using the TFWCH page, and which uses of the page were most important to them during and immediately after the disaster. The implications of these results will be analysed in light of the research questions in Chapter 9.

Method

Research design

The study was a retrospective case study design, which involved the administration of three online questionnaires targeting individuals involved in the bushfires and the aftermath of the disaster.

Participants

The participants were individuals who responded to posts on Facebook and Twitter and private messages requesting participants to complete the most relevant of three electronic surveys. Demographic details of the participants and details of the recruitment process are discussed below.

It is worth reiterating again that there are limitations in this sample and the recruitment process, which does affect the applicability of these findings to a wider population. Those who did not use the page were not captured at all, nor were many of those who used the page then decided to no longer continue to use it.¹⁸⁷

Regardless of these limitations, the sample size was healthy for hazard related research. It is particularly pleasing that more than 50 people who had been directly affected by the disaster took the time to complete the survey, given the other pressures on them at the time, including having to fill out multiple other forms associated with the response and recovery.¹⁸⁸

Materials

In the immediate aftermath of the disaster, the student researcher designed three questionnaires (see Table 7.1 below). A local research company Enterprise Marketing and Research Services (EMRS)¹⁸⁹ provided input into the development of the questionnaires. The questionnaires were only made available online and were completed electronically through Wufoo, which is commercial web-based form software that enables a download of the results via Microsoft Excel.

¹⁸⁷ As per Table 7.8 below, only 2.1% of the sample comprised individuals who had started using TFWCH but then discontinued using it.

¹⁸⁸ A common complaint about the official response was the registering/forms system implemented. There was no central database, which meant that bushfire-affected individuals had to complete brand new forms regularly for different departments and agencies of the Government.

¹⁸⁹ Enterprise Marketing and Research Services (www.emrs.com.au) is a Tasmanian social and marketing research consultancy providing consulting services in marketing and management within Tasmania and Australia.

Table 6.1. Description and sample size for the three questionnaires

Questionnaire	Short title	Intended respondents	Sample size
Q1	Individual Contributors	Individual people who had helped/contributed	$n = 531$
Q2	Business/Organisation Contributors	Businesses, organisations and companies who had helped/contributed	$n = 95$
Q3	Bushfire Affected Individuals	People who had been impacted by the bushfires themselves	$n = 52$
Total			$N = 678$

A link to an online copy of each questionnaire can be found in the Appendix (Table 11), and a summary of the contents of each questionnaire is below in Table 7.2. Q1 and Q2 each had three pages, and Q3 four pages.¹⁹⁰ If a participant completed a page and clicked the ‘next’ button, data from that completed page were saved even if the participant then abandoned the questionnaire. Pages could not be skipped.

Participants self-selected in regards to eligibility. That is to say, there were no exclusion or inclusion criteria, other than participants choosing which of the three questionnaires was most relevant to them based on the title of the questionnaire.¹⁹¹ They were also potentially able to complete more than one questionnaire. For example, a participant may have completed both Q1 and Q2, and been eligible to do so. It is unknown if this occurred, as the questionnaires were completed anonymously, but if it did occur it is not considered problematic. This is because it is assumed that if a participant did desire to complete two questionnaires, which

¹⁹⁰ Note that online pages are of varying length, and can be substantially longer than a regulation A4 printed page.

¹⁹¹ See Figures 1 to 3 in the Appendix for sample recruitment posts and emails. These give an indication of how potential participants were encouraged to decide which questionnaire or questionnaires were relevant to them.

contained almost identical items, it is because they had two different perspectives from which to share their experiences with the researchers, and therefore these two different perspectives were shared.

Table 6.2. Questionnaire design and content

Item	Data type	Number of items + options	Sample response	Page Number		
				Q1	Q2	Q3
Place of origin/birth	Categorical	3 options	“Tasmania”	1	1	1
Residence at time of fires	Categorical	3 options	“Other state”	1	1	1
Location when fires began	Categorical	3 options	“Overseas”	1	1	1
Initial source of referral to TFWCH	Categorical	9 (Q1, Q2) or 10 (Q3) options + 1 open-ended “Other” box	“ABC Radio”	1	1	1
Current contact with page	Categorical	4 options	“Yes, liked the page and continuing to follow”	1	1	1
Importance of different news medias	5-point Likert Scale	11 (Q1) or 14 (Q3) items, 5 options	Item: “TFS Website”. Option: ‘Extremely Important’	1	-	2
Name of business/organisation	Open-ended	Free paragraph	<i>“I work at Benny’s Wildlife Centre”</i>	-	1	-
Industry	Open-ended	Free paragraph	<i>“Agriculture. I farm”</i>	-	1	-
Role/job	Open-ended	Free paragraph	<i>“I work in admin there”</i>	-	1	-
Business location	Categorical	5 options	“Global”	-	1	-
Bushfire of most concern	Open-ended	Free paragraph	<i>“The Forcett fires”</i>	-	-	1
Volunteering behaviours and activities	Categorical	32 (Q1) or 35 (Q2) items, 2 options	Item: “Did you donate/volunteer at the Food Bank?” Option: ‘Yes, I did do this’	2	2	-

Table 7.2. Questionnaire design and content (continued)

Item	Data type	Number of items + options	Sample response	Page Number		
				Q1	Q2	Q3
Likelihood of volunteering in the absence of TFWCH	6-point Likert Scale	32 (Q1) or 35 (Q2) items, 6 options	Item: “Would you have donated to the Red Cross without TFWCH?” Option: ‘Probably not’	2	2	-
Assistance sought and received	5-point Likert Scale	42 items, 5 options	Item: “How important was TFWCH in helping you source fencing materials?” Option: ‘Not at all important’	-	-	2, 3
Any other comments/ clarification	Open-ended	Free paragraph	<i>“I also helped by...”</i>	3	3	4
Positive feedback on the management of the page	Open-ended	Free paragraph	<i>“I thought the page was good because...”</i>	3	3	4
Negative feedback on the management of the page	Open-ended	Free paragraph	<i>“The page could have been better if...”</i>	3	3	4
Any other social media that was useful	Open-ended	Free paragraph	<i>“The Animals R Us page was good because...”</i>	3	3	4
Optional: name and email	Open-ended	2 items, free paragraphs	<i>“Bob Smith”</i>	-	3	-
Age	Date of birth	YY/MM/DD box	“83/12/13”	3	-	4
Gender	Categorical	1 item, 2 options	Item: “Are you a boy or a girl?” Option: ‘Female’	3	-	4

Table 7.3 below summarises the completion status for each questionnaire.

Table 6.3. Questionnaire completion status (N = 678)

Questionnaire	Frequency
Questionnaire 1: Individual Contributors	
Completed Page 1 only	41
Completed Pages 1 and 2 only	18
Completed Pages 1, 2 and 3 (full completion)	472
Total	531
Questionnaire 2: Business/Organisation Contributors	
Completed Page 1 only	13
Completed Pages 1 and 2 only	5
Completed Pages 1, 2 and 3 (full completion)	77
Total	95
Questionnaire 3: Bushfire Affected Individuals	
Completed Page 1 only	1
Completed Pages 1 and 2 only	8
Completed Pages 1, 2 and 3 only	3
Completed Pages 1, 2, 3 and 4 (full completion)	40
Total	52

Procedure

Recruitment was via three channels. Firstly, the Administrator broadcast a series of posts on the TFWCH page requesting people complete the survey (see Figures 1 and 2 in the Appendix for two sample posts). Seven such posts appeared on TFWCH between February 13, 2013 and June 18, 2013. The dates of each recruitment post are included in the Research Timeline in the Appendix (Table 2). Although repeat posting would have increased the response rate, the main focus of TFWCH was to assist with the disaster, not to gather research data.

The second channel of recruitment, which was conducted simultaneously to the first, involved emailing a personal request to every individual who had sent the Administrator a private message over Facebook since TFWCH had been created. It was believed that if people received a private email requesting their participation, they would be more likely to respond. A research assistant logged in as the Administrator to help send all these invitations, which were simply a matter of copy pasting the same request into a private message and sending it (see Figure 3 in the Appendix for a sample email). These emails were sent during the months of February and March 2013.

The third channel of recruitment was the least intensive, and this simply involved providing a hyperlink to the questionnaires via a small number of tweets on the TFWCH Twitter account on the same day that the requests were created on the Facebook page.¹⁹²

In regards to establishing the response rate, it is impossible after-the-fact to estimate or calculate this. It is unknown exactly how many people engaged with the recruitment posts and tweets. It is also unknown how many private messages were delivered.¹⁹³ Suffice to say a large quantity of private messages was sent requesting people to take part in the research.

The last submission of a Q1 form was on August 5, 2013. For Q2, the final form was submitted on August 6, 2013, while for Q3 the last form came in on June 18, 2013.

¹⁹² Another member of the community was managing the TFWCH Twitter account (@TassieFiresWCH). She had offered to take on this role and was in charge of this job. This person was simply re-writing each TFWCH Facebook post into suitable language and syntax for Twitter.

¹⁹³ The only way to calculate how many were sent is to count them by hand, which would involve searching through thousands of emails. Many are no longer accessible via Facebook as they are too old and have been removed. Private messages in Facebook cannot be downloaded either.

Data Analysis

Only the quantitative results will be discussed in this chapter. The four open-ended, free response text field items that were analysed qualitatively are discussed in the following chapter, Chapter 8.

The first task involved downloading the data from Wufoo into Microsoft Excel. An SPSS spreadsheet was then created and the data entered.

With the exception of five data points relating to date of birth, and two data points relating to business industry and participant role (both of which are discussed below), there was no other randomly missing data. This was because questionnaires were electronic, and all sections had to be completed before the participant was able to continue. Therefore patterns of missing data were completely uniform: if data were missing it was due to the fact that the participant had abandoned the questionnaire by this time. As pages could not be skipped this then meant that all following pages would also be missing. Thus no imputation methods were used. Missing data remained as ‘missing data’ and was classified accordingly in SPSS.

Birthdates were transformed into ages, using the series number function in Microsoft Excel. The age bracket breakdowns used were the same as those used in Facebook metrics. Five birthdates had been entered incorrectly and were not feasible dates of birth, and therefore were classified as missing data.

The responses to the open-ended item on Q3: “Which fire was of most concern to you?” needed categorising, and based on the responses, five appropriate, encompassing categories of different fire locations were created.

The responses to the two open-ended items on Q2: “What industry are you in?” and “What is your current role here?” also required categorising. The 2006

Australian and New Zealand Standard Industrial Classification (ANZSIC) system developed by the Australian Bureau of Statistics was used for this.

An item appearing on all three questionnaires explored where people had first heard about the TFWCH Facebook page, and a number of responses such as “Facebook” and “ABC Radio” were listed for participants to select from. One of the other potential responses on this list was “Other.” This optional item then followed: “If you ticked ‘Other’, would you like to give any more information?” A number of individuals completing the questionnaire did select “Other” as their response, and chose to give more information about where they had first heard about the page. However, it was apparent that their response did already fit in with one of the other options that had been previously offered.¹⁹⁴ Some regularly occurring responses did not fit easily in to the pre-existing options however, so two more categories were created: “Other – TFS Website” and “Other – Saw the Smoke,”¹⁹⁵ and the original category “Other” was renamed “Other – Miscellaneous.”

Three of the Likert scales were condensed and recoded, to simplify and improve the results presentation. These appear in Table 7.4 below.

Table 6.4. Questionnaire items that were condensed post questionnaire submission

Item		Likert scale condensed
Importance of different news medias	Q1, Q3	5-point → 3-point
Likelihood of volunteering in the absence of TFWCH	Q1, Q2	6-point → 4-point
Assistance sought and received	Q3	5-point → 3-point

¹⁹⁴ For example, one of the potential responses to the question of “How did you first hear about the TFWCH page?” was “Friends/Family.” Contrary to what would be expected, one respondent had not selected that box; instead selecting the “Other” box. When asked to give more information, the response was “My aunty told me about it.” Thus a number of responses were recoded that should not have appeared in “Other.”

¹⁹⁵ This was a curious answer. It is likely respondents were confused by this question; perhaps interpreting it as “where did you first hear about the fires” rather than “where did you first hear about TFWCH”.

The last data preparation concerned the creation of a new indicator for Q1 and Q2. This new indicator is called “Page Impact.” It is discussed shortly.¹⁹⁶

Thus the data were ready for analysis. Analysis was straight forward, involving simply calculating descriptive statistics: frequencies and percentages.

Results

Demographic information

Demographic data are presented in Table 7.5 below.

¹⁹⁶ See below, Page Impact: Q1 and Page Impact: Q2

Table 6.5. Q1 and Q3: Sex and age (frequencies and percentages) ($n = 583$)

Questionnaire	Q1	Q3	Total
	Individual Contributors	Bushfire Affected Individuals	
Sample	$n = 531$	$n = 52$	$n = 583$
Frequency (<i>Percentage</i>)			
Sex			
Males	92 (19.5)	6 (15.0)	98 (19.1)
Females	380 (80.5)	34 (85.0)	414 (80.9)
Missing/incomplete	59	12	71
Age brackets			
13 – 17yo	15 (3.2)	1 (2.5)	16 (3.2)
18 – 24yo	30 (6.4)	3 (7.5)	33 (6.5)
25 – 34yo	129 (27.6)	10 (25.0)	139 (27.4)
35 – 44yo	122 (26.1)	12 (30.0)	134 (26.4)
45 – 54yo	113 (24.2)	10 (25.0)	123 (24.3)
55 – 64yo	52 (11.1)	3 (7.5)	55 (10.8)
65+	6 (1.3)	1 (2.5)	7 (1.4)
Missing/incomplete	64	12	76

The majority of the sample of respondents to Q1 was female. The majority of bushfire-affected individuals who used the page (respondents to Q3) was also female; in fact the swing of females was higher at 85.0%. Combined, the percentage of female users of the page who had completed the questionnaire was 80.9%.

In regards to age, 77.9% of individuals who helped (Q1) were between the age of 25 and 54 years old, and the spread between the three age brackets (25 –

34yo, 35 – 44yo and 44 – 54yo) was even.¹⁹⁷ These results give some understanding of which members of the population social media reached and which it did not, which is important when considering overall strategies of communication.

Next, in Table 7.6, the data relating to location will be examined.

Table 6.6. All questionnaires: Participants' original location, and location of residence and actual location at fire outbreak (N = 678)

Questionnaire	Q1	Q2	Q3	Total
	Individual Contributors	Business/ Org. Contributors	Bushfire Affected Individuals	
	Frequency (<i>Percentage</i>)			
Sample	<i>n</i> = 531	<i>n</i> = 95	<i>n</i> = 52	N = 678
Original Location				
Tasmania	414 (78.0)	68 (71.6)	41 (78.8)	523 (77.1)
Other State in Australia	79 (14.9)	19 (20.0)	9 (17.3)	107 (15.8)
Overseas	38 (7.2)	8 (8.4)	2 (3.8)	48 (7.1)
Location of residence January 4, 2013				
Tasmania	483 (91.0)	83 (87.4)	51 (98.1)	617 (91.0)
Other State in Australia	47 (8.9)	12 (12.6)	1 (1.9)	60 (8.8)
Overseas	1 (0.2)	0 (0.0)	0 (0.0)	1 (0.1)
Location at outbreak January 4, 2013				
Tasmania	486 (91.5)	82 (86.3)	50 (96.2)	618 (91.2)
Other State in Australia	45 (8.5)	13 (13.7)	2 (3.8)	60 (8.8)
Overseas	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

¹⁹⁷ This means that this sample is fairly representative of the users of TFWCH. Earlier in Chapter 5, the demographic data available through Locowise concerning the users of the page was explored (see Table 5.6). 68.5% of users of the page were aged between 25 and 54, compared to 77.9% of the respondents to the questionnaire. However, there are some disparities when comparing the age breakdowns between the users of the page, and those who completed the questionnaire. While the age breakdowns between the ages of 25 and 54 for people who completed the questionnaires were similar (see Table 7.5 above), a greater number of younger people used the page (see Table 5.8). That is to say, while a greater number of younger people used TFWCH, a slightly greater number of older people completed the questionnaire.

The majority of respondents (77.1%) were born in Tasmania. When the fires began, 91% of the respondents were living in Tasmania, and 91.2% were in Tasmania on the day. This demonstrates that a number of respondents were new citizens of the state, although it cannot be determined how long they may have been in Tasmania, as this was not asked.¹⁹⁸

The table below, Table 7.7, explores the results for the item exploring the fire of most concern to the participants.

Table 6.7. Q3: Fire of most concern (n = 52)

Fire	Bushfire Affected Individuals
	Frequency (Percentage)
Forcett/Dunalley/Tasman Peninsula	49 (94.2)
Derwent Valley/Ellendale	1 (1.9)
Bicheno	0 (0.0)
Molesworth	0 (0.0)
Multiple Fires	2 (3.8)

As expected, the Dunalley fire was the fire that concerned the most people (94.2%).¹⁹⁹ The other 3.8% of respondents were concerned with multiple fires.

The following table, Table 7.8, explores who was still a fan of the page at questionnaire submission.

¹⁹⁸ Asking this question would have been useful as the longer a person resides in an area the greater their social capital and attachment to place (Barraket et al., 2013; Haines et al., 1996).

¹⁹⁹ According to the Bushfire Inquiry (see Chapter 4, The Tasmanian Bushfires of 2013) this was the most damaging and concerning of the fires, and had the most impact in terms of loss and hectares burnt.

Table 6.8. All questionnaires: Current status of TFWCH engagement (N = 678)

Questionnaire	Q1	Q2	Q3	Total
	Individual Contributors	Business/ Organisation Contributors	Bushfire Affected Individuals	
Frequency (percentage)				
Sample	n = 531	n = 95	n = 52	N = 678
Did you like the page?				
Yes, liked the page and continuing to follow	516 (97.2)	91 (95.8)	50 (96.2)	657 (96.9)
Yes, liked the page but no longer following	10 (1.9)	3 (3.2)	1 (1.9)	14 (2.1)
No, just appeared in newsfeed	4 (0.8)	1 (1.1)	1 (1.9)	6 (0.9)
Not on Facebook. Heard about it elsewhere	1 (.2)	0 (0.0)	0 (0.0)	1 (.1)
Total	531 (100.0)	95 (100.0)	52 (100.0)	678 (100.0)

As expected, the majority of respondents to the questionnaires were still following the page. Interestingly, a small number of participants had never liked the page nor were they on Facebook at all.

Table 7.9 below explores some of the demographic data concerning the respondents from various businesses and organisations who had completed Q2.

Table 6.9. Q2: Business location, sector, and participant's current role (n =95)

Item	Frequency (%)	Item	Frequency (%)
Where is your business based?			
Tasmania	74 (77.9)	Nation-wide	8 (8.4)
Other State	11 (11.6)	Global	2 (2.1)
What industry are you in?			
Retail or trade	16 (16.8)	Education	4 (4.2)
Professional, scientific and technical services	13 (13.7)	Administrative and support services	1 (1.1)
Accommodation and food services	4 (4.2)	Finance and insurance	2 (2.1)
Healthcare and social assistance	16 (16.8)	Manufacturing	2 (2.1)
Agriculture, fishing and forestry	5 (5.3)	Construction	1 (1.1)
Arts and recreation services	7 (7.4)	Government administration and defence	1 (1.1)
Public administration and safety	1 (1.1)	Personal and other services	1 (1.1)
Information media and telecommunications	9 (9.5)	Other services	8 (8.4)
Transport and storage	2 (2.1)	Missing Data	1 (1.1)
Electricity, gas and water supply	1 (1.1)		
What is your current role here?			
Employee	19 (20.0)	Top Management	54 (56.8)
Administration	9 (9.5)	Other	4 (4.2)
Middle Management	8 (8.4)	Missing Data	1 (1.1)

The majority of businesses were Tasmanian, but over 20% of the businesses that had assisted were not solely based in Tasmania, or not even based in Tasmania at all. Many sectors and areas were represented, but retail/trade,

professional/scientific/technical services, and healthcare/social assistance combined represented 47.3% of all respondents. 56.8% of respondents who had filled out the questionnaire were at the level of top management within their organisation or business.

Referral to TFWCH

One item on each questionnaire asked participants how they initially found out about the existence of TFWCH. The various initial referring sources to TFWCH are detailed in Table 7.10 below.

Table 6.10. All questionnaires: Initial source of referral to TFWCH (N = 678)

Initial source of referral	Individual Contributors	Business/ Organisation Contributors	Bushfire Affected Individuals	Total
Sample size	<i>n</i> = 531	<i>n</i> = 95	<i>n</i> = 52	<i>N</i> = 678
Frequency (<i>Percentage</i>)				
Facebook	383 (72.1)	67 (70.5)	31 (59.6)	481 (70.9)
ABC Radio	42 (7.9)	3 (3.2)	5 (9.6)	50 (7.4)
ABC TV	6 (1.1)	2 (2.1)	0 (0.0)	8 (1.2)
<i>The Mercury</i> newspaper	4 (.8)	1 (1.1)	0 (0.0)	5 (0.7)
Other radio station	11 (2.1)	2 (2.1)	2 (3.8)	15 (2.2)
Other TV/news show	24 (4.5)	3 (3.2)	0 (0.0)	27 (4.0)
Other newspaper/magazine	1 (.2)	0 (0.0)	0 (0.0)	1 (.1)
Friends/family	42 (7.9)	11 (11.6)	11 (21.2)	64 (9.4)
Other – miscellaneous	5 (.9)	4 (4.2)	0 (0.0)	9 (1.3)
Other – saw the smoke	7 (1.3)	2 (2.1)	2 (3.8)	11 (1.6)
Other – TFS website	6 (1.1)	0 (0.0)	1 (1.9)	7 (1.0)
Total	531 (100.0)	95 (100.0)	52 (100.0)	678 (100.0)

There were some interesting differences between the three groups on this item. Facebook was the key initial source of information for all groups; but a greater percentage of the respondents who were individuals (72.1%) or businesses that had helped (70.5%) had been referred to TFWCH via Facebook initially compared to the percentage of bushfire-affected individuals (59.6%). 21.2% of the bushfire-affected sample found out about TFWCH from friends or family first,²⁰⁰ compared to 7.9% of individuals who had helped and 11.6% of businesses or organisations who had helped. For those impacted by the fires, friends and family were important referrers to the page.²⁰¹ The ABC radio station referred a significant number of people to the page, particularly bushfire-affected individuals.

Preferred media

One item on each questionnaire asked each participant to rate the relative importance of a list of different forms of media, such as Twitter, the TFWCH page and *The Mercury* newspaper. The results, including frequencies and percentages, for this item are in the Appendix (Table 12). The following graphs (Figures 7.1 – 7.3) present the results for each questionnaire, with the scores appearing as frequencies.

²⁰⁰ It is possible this was due to lack of internet access while in the affected area

²⁰¹ It is hoped that participants did not confuse ‘Facebook’ and ‘friends and family’ (that is, friends and family in the offline world) when answering this question.

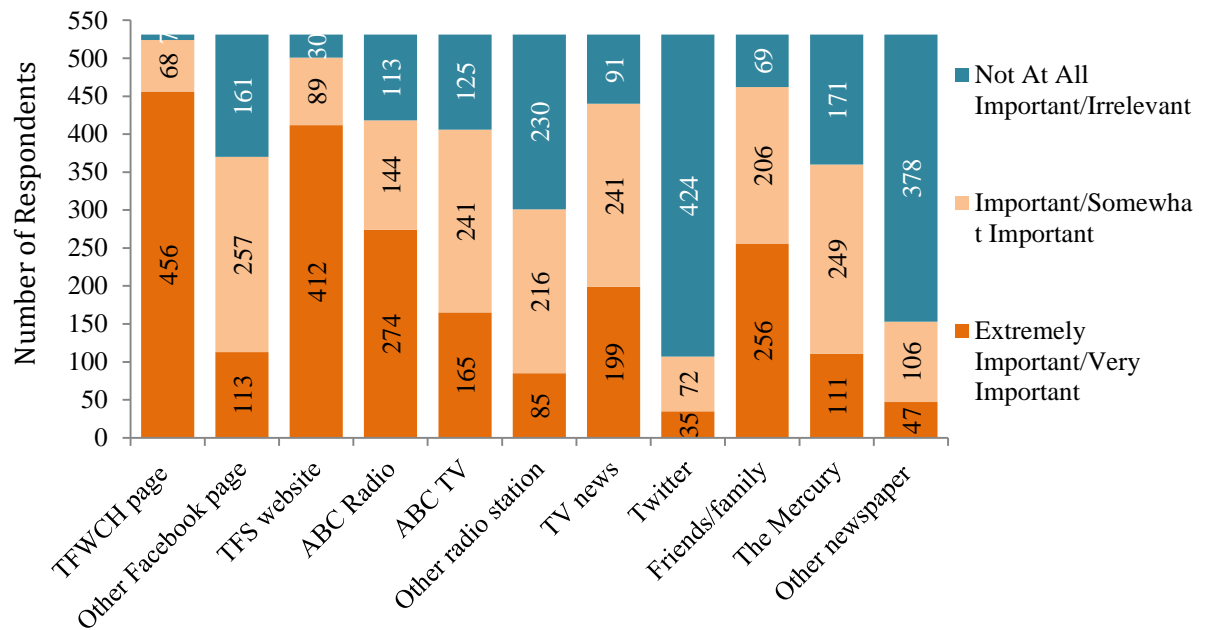


Figure 6.1. Q1: Perceived importance of various media sources ($n = 531$)

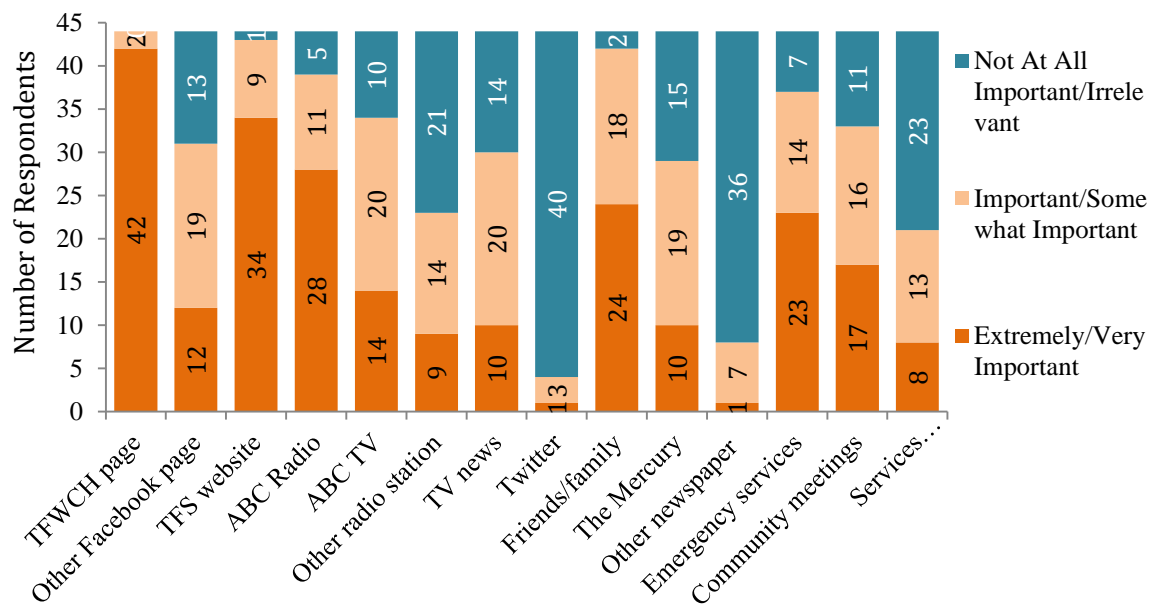


Figure 6.2. Q3: Perceived importance of various media sources ($n = 44$)

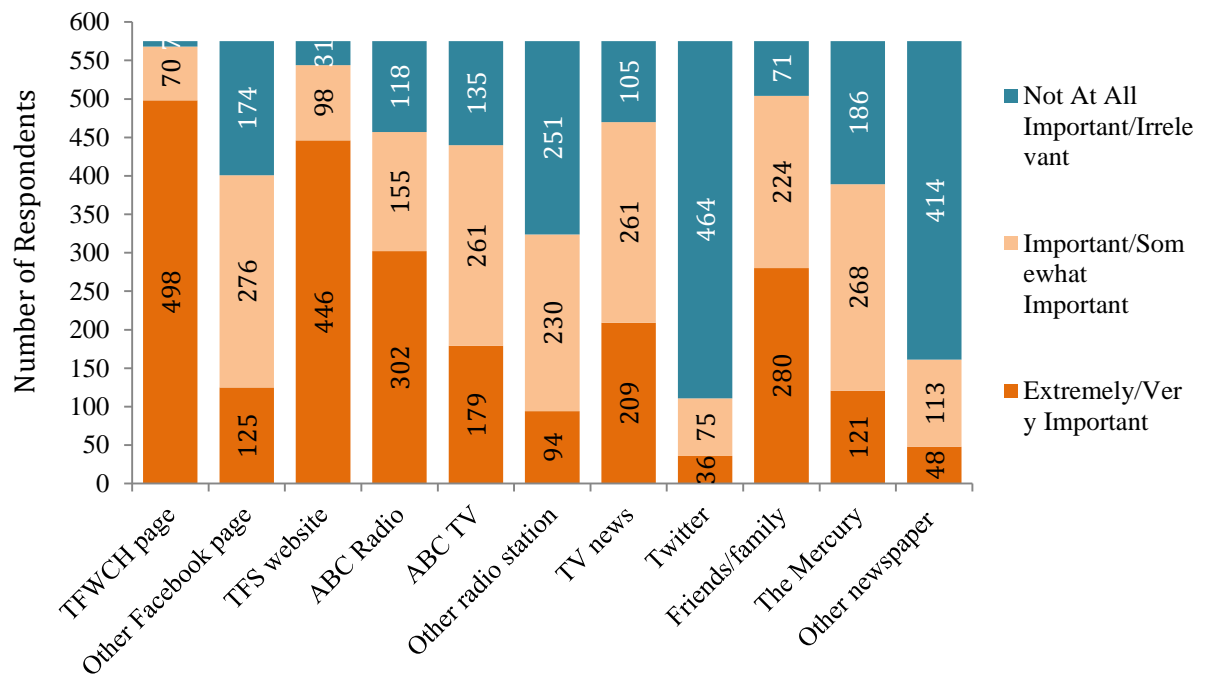


Figure 6.3. Q1 and Q3 combined: Perceived importance of various media sources ($n = 575$)

The most important source of information for this sample was the TFWCH Facebook page. 95.5% and 85.9% of bushfire-affected individuals and individuals who had helped respectively rated the TFWCH page as very or extremely important. Other forms of social media, such as other Facebook pages or Twitter, were not considered to be as important. For other Facebook pages, only 21.3% of the individual helpers rated them as very or extremely important, and 27.3% of bushfire-affected said the same.

Twitter scored low for respondents of Q1 and Q3, at only 6.6% and 2.3% respectively indicating that they felt the platform was very important. The TFS website was very important according to 77.6% of individuals who had helped and 77.3% of bushfire-affected individuals. ABC radio was another important source; with 51.6% of respondents of Q1 and 63.6% of respondents from Q3 saying it was very important.

Friends and family were very important as a source of information, according to 48.2% of individuals who had helped and 54.4% of bushfire-affected individuals who had responded. Of the three possible additional sources of information in the affected area, emergency services on the ground were considered very important by 52.3% of the sample, compared to community meetings at 38.6% and services doorknocking at 18.2%.

Volunteering activities: Questionnaire 1

A list of the varying ways people had responded during the disaster was compiled, and this list was included in Q1 and Q2. The key information sought was whether people had completed each particular volunteering behaviour or not (identified simply by responding ‘yes’ or ‘no’). It is acknowledged that this was not an exhaustive list of potential volunteering behaviours; thus respondents were given the opportunity to discuss any other volunteering they may have engaged in as part of an open-ended question on the questionnaire (see Chapter 8).

The list of potential volunteering items is described below in Table 7.11, exactly as they were presented in the questionnaires (a more comprehensive explanation of what each type of volunteering involved is presented in the Appendix in Table 13). The results are then presented below the table as a graph (Figure 7.4), with the results presented as frequencies. A table containing the full results, including percentages, is contained in the Appendix in Table 14.

Table 6.11. Questionnaire 1 and Questionnaire 2: List of potential volunteering activities or behaviours

Volunteering activity or behaviour	
I donated/volunteered with St Vincent de Paul's at the Showgrounds	I donated \$\$ to an official bushfire appeal (e.g.: Red Cross, Bendigo Bank, Salvos)
I donated/volunteered at the Sorell RSL	I donated/volunteered at the Food Bank
I helped out/donated at The Don/City Hall/Dunalley Recovery Centre/other evacuation or recovery site	I donated/volunteered for Blaze Aid
I donated/helped out at a fire station/to fire fighters (it is not your normal job)	I took my boat out/got on a boat to make deliveries to the South East/Peninsula
I took a donation to a boat that was leaving for the Peninsula from Cremorne/Margate/ Bellerive/Dodges/other	I gave a donation/gift/something that was needed directly to someone (whether it was transported by you or someone else doesn't matter)
I donated something for a fundraiser/gave money to one/attended a fundraiser!	I created/played a big role in the making of a fundraiser!
I made an offer of housing/housed someone/am still housing someone!	I offered my professional services for cheap/free
I gave a stranger support/encouragement/ praise (<i>Q1 only</i>)	I set up a Facebook page/group to help in some way
I shared information online. I was able to answer questions that other people had.	I delivered something/was able to provide transport in some way
I donated to the Dunalley Fuel Fund/made another donation of petrol/fuel	I have helped in some way with the Sunset Cabins Rebuild for Harvey

Table 7.11. Questionnaire 1 and Questionnaire 2: List of potential volunteering activities or behaviours (continued)

Volunteering activity or behaviour	
I helped someone with the clean-up/repairs at their property (not through an official organisation)	I have helped in some way with Dunalley Primary School
I contacted a business/organisation/ celebrity to see if they could help	I created a drop-off point/a collection of specific items
I put my name down with Volunteering Tasmania	I helped in some way with feeding livestock/donating food for livestock/getting food to livestock
I donated goods for fencing/I helped with fencing (separate to Blaze Aid)	I helped with missing/injured pets
I helped with missing/injured livestock	I helped with injured/orphaned/affected wildlife
I got a vehicle/myself into the affected area when the roads were closed to get some work/donations done (and you are not technically with emergency services)	I got a vehicle/myself into the affected area when the roads were RE-OPENED to get some work/donations done (and you are not technically with emergency services)
We gave staff time off/leeway to help with the fires (<i>Q2 only</i>)	We offered free/discounted goods and services to those in need (<i>Q2 only</i>)
We donated/hired things to those in need/people who were assisting (<i>Q2 only</i>)	We gave a percentage of sales/income as a donation (<i>Q2 only</i>)

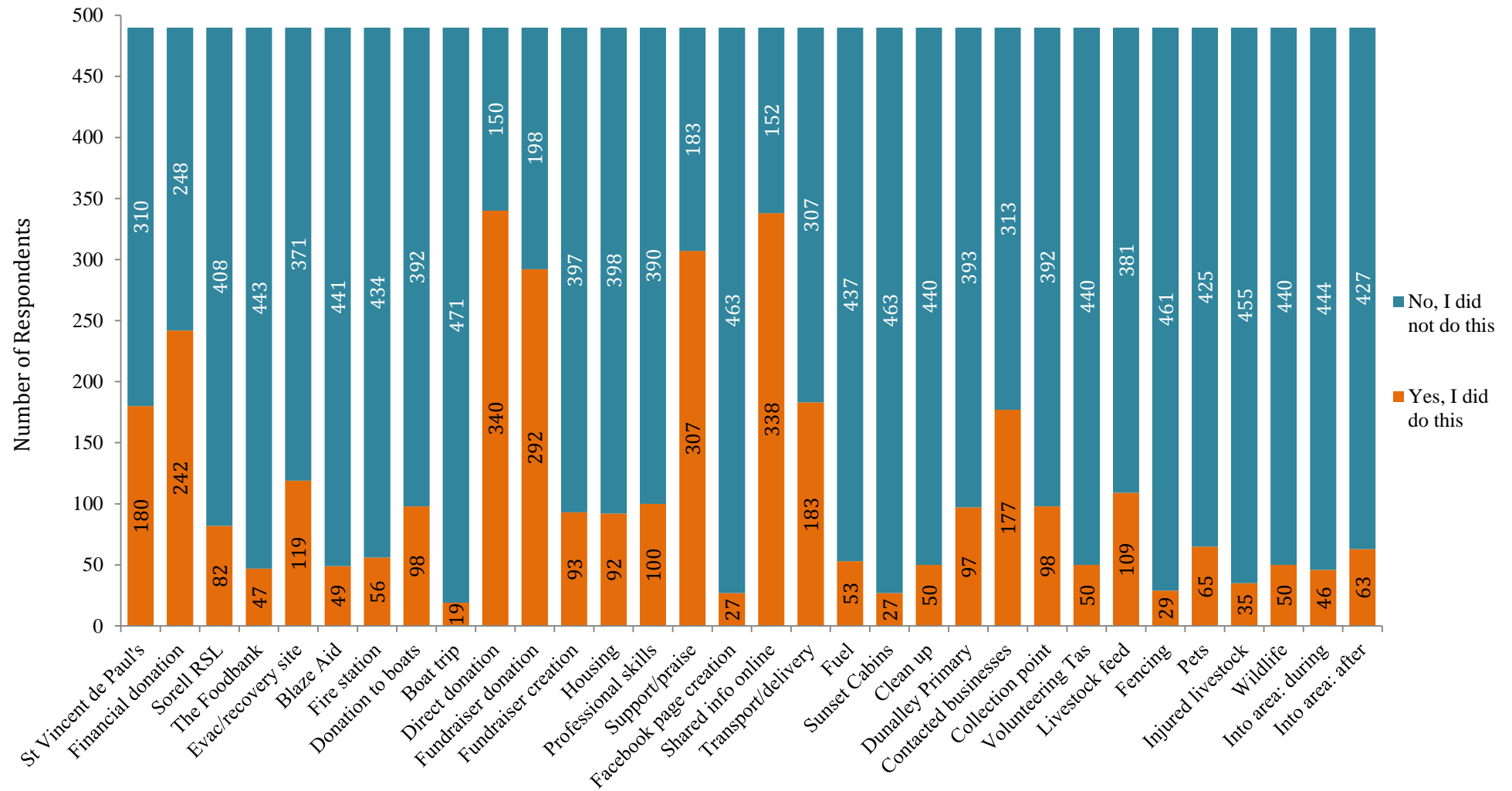


Figure 6.4. Questionnaire 1: Volunteering activities (frequencies) (n = 490)

The top five most prevalent volunteering behaviours were giving a direct donation to a specific person or family in need (340 volunteers indicated they did this), sharing information online (338 volunteers), offering support or praise (307), supplying a donation/being involved/contributing to a fundraiser (292), and making a financial donation to an official appeal (242). Three other volunteering behaviours were quite prevalent, followed by substantially fewer volunteers completing the following behaviours in the list.

The five least prevalent activities were assisting with injured livestock (35 volunteers completed this activity), contributing towards fencing assistance (29 volunteers), creating a Facebook page of some sort to assist with the disaster (27), assisting with the rebuild of a destroyed tourism park (27), and taking a boat into the affected area (19).

Volunteering activities: Questionnaire 2

The graph below (Figure 7.5) presents the results for the same item for Q2 (businesses and organisations who contributed). Respondents to Q2 had also indicated which items on a list of volunteering activities they had completed.

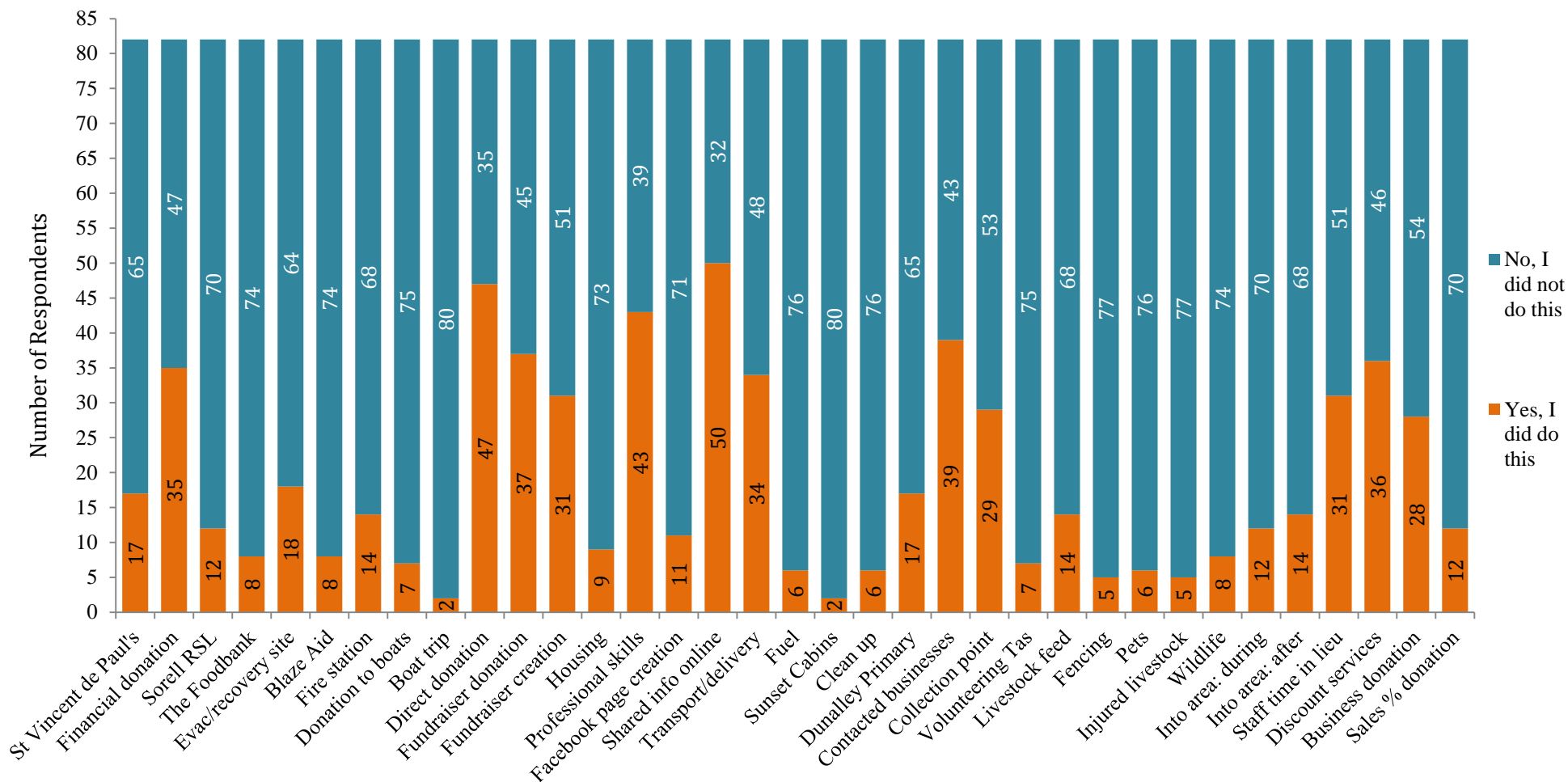


Figure 6.5. Questionnaire 2: Volunteering activities (frequencies) ($n = 82$)

The five most prevalent volunteering activities undertaken by organisations and businesses were sharing information online (50 businesses or organisations indicated they did this), giving a direct donation to a family/individual in need (47 business/organisation volunteers), offering professional services for free to assist with the response and recovery (43), contacting other businesses to organise further assistance (39) and donating to/attending/contributing to a fundraiser of some description (37).

The next five to seven most prevalent volunteering behaviours were close in ranking to the first five, suggesting a relatively wide distribution of volunteering behaviours. That is to say, a large number of different volunteering behaviours were just as prevalent as the others.

The five least prevalent activities were assisting with injured or missing pets (6 businesses or organisations did this), contributing to or assisting with fencing (5), helping with injured livestock (5), taking a boat into the affected area (2), and assisting in some way with the rebuild of a local tourism accommodation (2).

Comparing Questionnaire 1 and Questionnaire 2

The above results were presented as frequencies. Figure 7.6 below presents the results for Q1 and Q2 together in order to explore how individuals and businesses differed in the ways they contributed. In this figure, only the volunteering behaviours that were completed are presented.

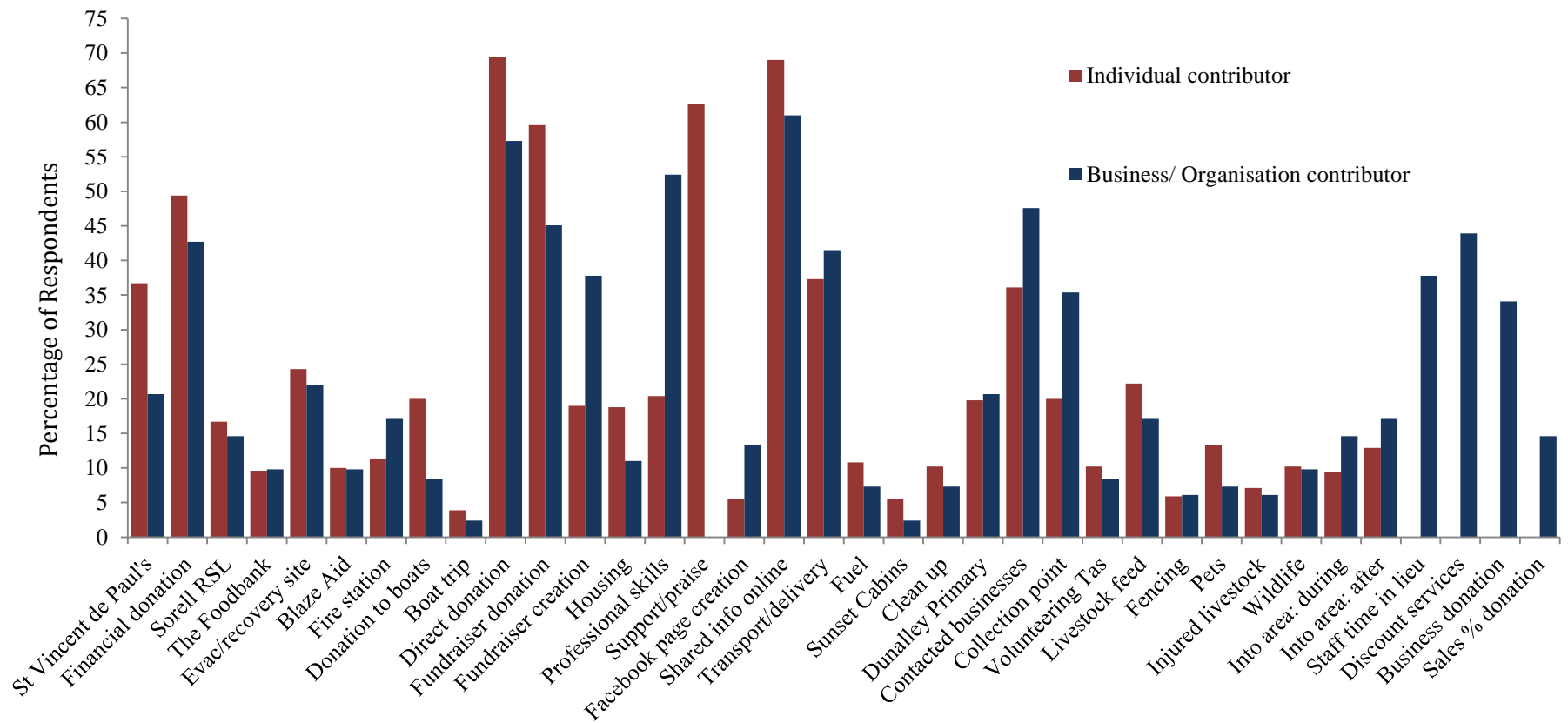


Figure 6.6. Questionnaire 1 and Questionnaire 2 compared: Volunteering activities completed (percentages) ($n = 572$)

Individual helpers and business/organisational helpers differed substantially on a few key behaviours.²⁰² A statistical analysis was not conducted, as the sample size difference was too great between the two samples,²⁰³ but below is a snapshot of some of the principal differences between individual and business contributors.

Table 6.12. Questionnaire 1 and Questionnaire 2: Snapshot of volunteering preferences

Volunteering activity	More likely to be done by individuals	
	Individual	Business
Donate/assist with St Vincent de Paul's	36.7%	20.7%
Take a boat out to the affected areas	20.0%	8.5%
Give direct help to family/individual	69.4%	57.3%
Donate to a fundraiser	59.6%	45.1%
Volunteering activity	More likely to be done by a business	
	Individual	Business
Create/play important role in a fundraiser	19.0%	37.8%
Offer professional services for free	20.4%	52.4%
Start a Facebook page to assist in some way	5.5%	13.4%
Contact other businesses to get more support	36.1%	47.6%
Give to a specific collection point	20.0%	35.4%

²⁰² Five items were only asked of one sample and not the other, thus these items are not included in the comparison.

²⁰³ When interpreting these results, it is important to factor in the relative size of each of the two groups. For example, while 37.8% of businesses created fundraisers compared to only 19.0% of individuals, only 31 businesses created fundraisers compared to 93 individuals. It is possible that organisations had more 'man power' than individuals: there was no attempt to quantify and then compare the *relative* contributions of individuals and organisations. It is still interesting and useful however to explore how the two groups do differ in volunteering preferences.

The next graph, Figure 7.7, combines the results for Q1 and Q2 to present an overall picture of the most common volunteering activities undertaken across the whole sample.²⁰⁴

²⁰⁴ These findings are only somewhat useful, as it is likely that businesses and organisations contributed in different quantities to individuals.

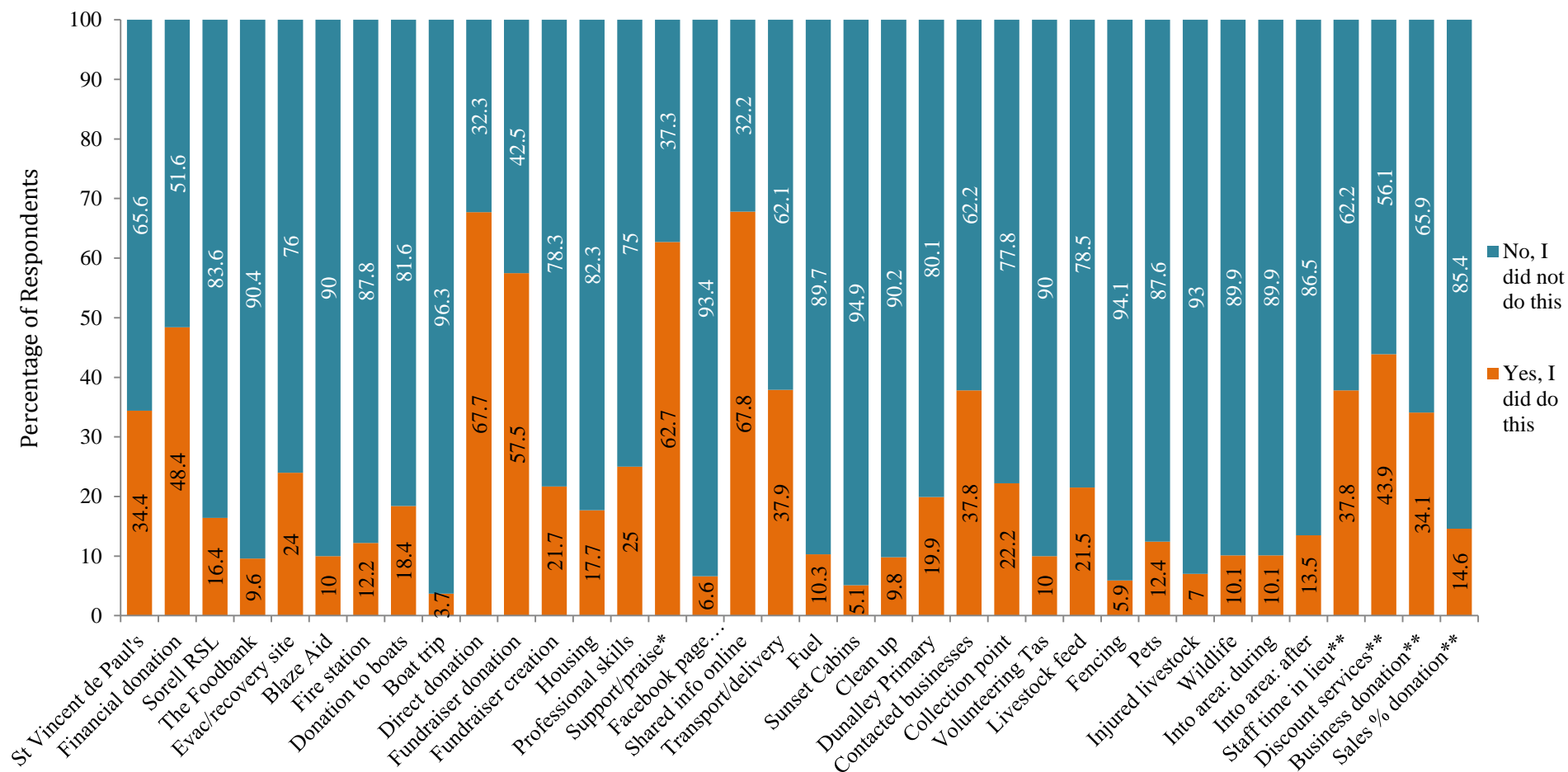


Figure 6.7. Questionnaire 1 and Questionnaire 2 combined: Volunteering activities (percentages) (n = 572)
 (** = Items appeared only on Q2)

Overall the five most prevalent volunteering behaviours across both groups were sharing information online (completed by 67.8% of all respondents), giving a direct donation to a family or individual in need (67.7%), providing support or praise (62.7%), donating or contributing in some way to a fundraiser (57.5%), and giving a financial donation (48.4%). It is interesting that providing support or praise ranked so highly: as mentioned earlier, this item did not appear on Q2.

Overall the five least prevalent volunteering contributions were helping in some way with injured livestock (7.0%), creating a Facebook page (6.6%), assisting in some way with fencing (5.9%), contributing to a tourism accommodation rebuild (5.1%), and taking a boat out into the affected area (3.7%).

Page impact: Questionnaire 1

The next section explores the impact TFWCH had on the choices people made to volunteer – that is, whether the page encouraged *more* volunteering than might have occurred had the page not been in existence.

Firstly the items being explored will be recapped. A sample item was “Did you donate money to the Red Cross?” and the ensuing options were “Yes” or “No.” If the respondent replied, “Yes,” they were then asked the following question: “Thank you for donating to the Red Cross! Would you have done this without the TFWCH Facebook page?” The respondent could then choose from one of six options. As was mentioned in the Procedure section of this chapter, for the purposes of clear analysis and to present the results in a parsimonious way, these options were then reduced to four options (see left hand column of Table 7.13 below).

It can be difficult to quantify or describe precisely the contribution of spontaneous volunteers and emergent groups in a disaster. Therefore a new indicator

was then created: “Page Impact.” This was created in order to establish which volunteering behaviours the page had an impact on, and which ones it did not have an impact on. It was created simply by condensing the Likert scale, as presented in Table 7.13 below.

Table 6.13. Questionnaire 1 and Questionnaire 2: Creating the Page Impact indicator

Responses to “Would you have done Volunteer Behaviour X without TFWCH?”	New indicator: “Page Impact”
“No way/probably not”	→ “The page had an impact”
“The page enabled more”	
“Hard to say/not sure”	→ “Hard to say/not sure”
“Probably/definitely”	→ “The page did not have an impact”

The graph below (Figure 7.8) shows the results for this indicator, for the individual contributors (Q1).²⁰⁵ These results give an idea of how much of an impact social media may have on the activities of spontaneous volunteers, which is the first attempt in the literature to quantify this question.

²⁰⁵ To see the results before the categories were condensed down see Figure 4 in the Appendix.

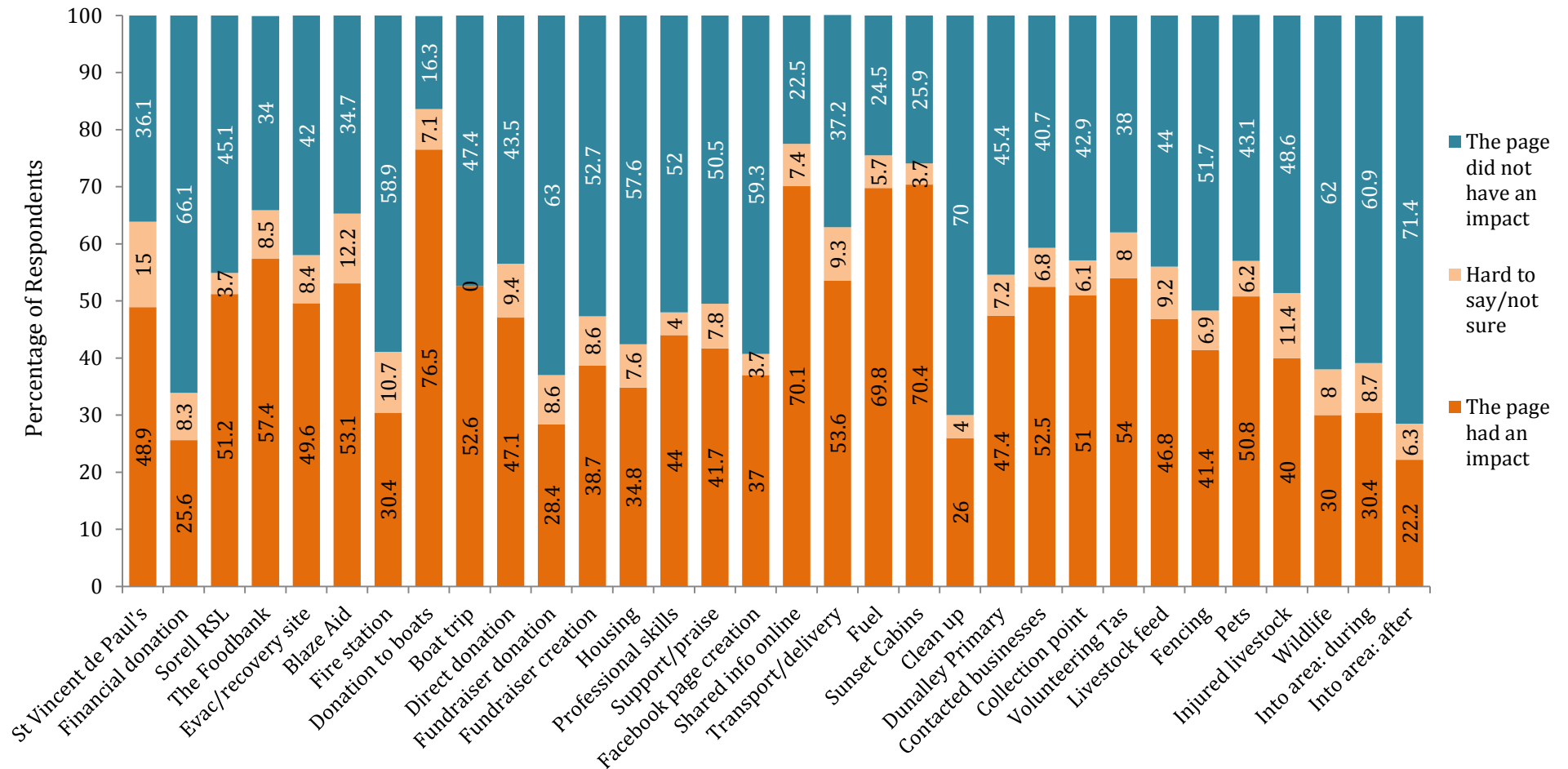


Figure 6.8. Questionnaire 1: Impact of TFWCH on volunteering (n = 490)

The graph above, Figure 7.8, gives a useful overall snapshot of the results, but to be truly meaningful, these statistics need to be looked at in three different ways.

The first way is recap exactly how many people completed each of the volunteering behaviours specified, to get an understanding of exactly which ones were the most prevalent (ranked in Table 7.14). Then it is important to examine the impact factor of the page on each of the behaviours, to explore which volunteering behaviours had been more likely to occur due to the direction and guidance from the TFWCH Facebook page, and which would have been likely to occur regardless of the TFWCH initiative (ranked in Table 7.15). The next statistic to explore is looking at exactly how many ‘extra’ volunteers were in action due to being positively influenced by the TFWCH initiative (ranked in Table 7.16).

Table 6.14. Questionnaire 1: Volunteering activities ranked according to prevalence

Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced	Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced
Direct donation	340	47.1%	160	Sorell RSL	82	51.2%	42
Share info online	338	70.1%	237	Pets	65	50.8%	33
Support/praise	307	41.7%	128	Into area: after	63	22.2%	14
Fundraiser donation	292	28.4%	83	Fire station	56	30.4%	17
Financial donation	242	25.6%	62	Fuel	53	69.8%	37
Transport/delivery	183	53.6%	98	Clean Up	50	26.0%	13
St Vincent de Paul's	180	48.9%	88	Volunteering Tas	50	54.0%	27
Contacted business	177	52.5%	93	Wildlife	50	30.0%	15
Evac/recovery site	119	49.6%	59	Blaze Aid	49	53.1%	26
Livestock feed	109	46.8%	51	The Food Bank	47	57.4%	27
Professional skills	100	44.0%	44	Into area: during	46	30.4%	14
Donation to boats	98	76.5%	75	Injured livestock	35	40.0%	14
Collection point	98	51.0%	50	Fencing	29	41.4%	12
Dunalley Primary	97	47.4%	46	Facebook page creation	27	37.0%	10
Fundraiser creation	93	38.7%	36	Sunset Cabins	27	70.4%	19
Housing	92	34.8%	32	Boat trip	19	52.6%	10

Table 6.15. Questionnaire 1: Volunteering activities ranked according to page impact

Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced	Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced
Donation to boats	98	76.5%	75	Direct donation	340	47.1%	160
Sunset Cabins	27	70.4%	19	Livestock feed	109	46.8%	51
Shared info online	338	70.1%	237	Professional skills	100	44.0%	44
Fuel	53	69.8%	37	Support/praise	307	41.7%	128
The Food Bank	47	57.4%	27	Fencing	29	41.4%	12
Volunteering Tas	50	54.0%	27	Injured livestock	35	40.0%	14
Transport/delivery	183	53.6%	98	Fundraiser creation	93	38.7%	36
Blaze Aid	49	53.1%	26	Facebook page creation	27	37.0%	10
Boat trip	19	52.6%	10	Housing	92	34.8%	32
Contacted business	177	52.5%	93	Fire station	56	30.4%	17
Sorell RSL	82	51.2%	42	Into area: during	46	30.4%	14
Collection point	98	51.0%	50	Wildlife	50	30.0%	15
Pets	65	50.8%	33	Fundraiser donation	292	28.4%	83
Evac/recovery site	119	49.6%	59	Clean up	50	26.0%	13
St Vincent de Paul's	180	48.9%	88	Financial donation	242	25.6%	62
Dunalley Primary	97	47.4%	46	Into area: after	63	22.2%	14

Table 6.16. Questionnaire 1: Volunteering behaviours ranked according to number of volunteers influenced

Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced	Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced
Shared info online	338	70.1%	237	Fundraiser creation	93	38.7%	36
Direct donation	340	47.1%	160	Pets	65	50.8%	33
Support/praise	307	41.7%	128	Housing	92	34.8%	32
Transport/delivery	183	53.6%	98	The Food Bank	47	57.4%	27
Contacted business	177	52.5%	93	Volunteering Tas	50	54.0%	27
St Vincent de Paul's	180	48.9%	88	Blaze Aid	49	53.1%	26
Fundraiser donation	292	28.4%	83	Sunset Cabins	27	70.4%	19
Donation to boats	98	76.5%	75	Fire station	56	30.4%	17
Financial donation	242	25.6%	62	Wildlife	50	30.0%	15
Evac/recovery site	119	49.6%	59	Injured livestock	35	40.0%	14
Livestock feed	109	46.8%	51	Into area: during	46	30.4%	14
Collection point	98	51.0%	50	Into area: after	63	22.2%	14
Dunalley Primary	97	47.4%	46	Clean up	50	26.0%	13
Professional skills	100	44.0%	44	Fencing	29	41.4%	12
Sorell RSL	82	51.2%	42	Boat trip	19	52.6%	10
Fuel	53	69.8%	37	Facebook page creation	27	37.0%	10

These results provide a useful snapshot for exploring which volunteering behaviours were the most prevalent. Giving a direct donation, sharing information online, offering support or praise, donating to a fundraiser and giving a financial donation were the most common volunteering activities. These results also indicate which volunteering behaviours were the most influenced by the TFWCH page, which helps inform about the types of volunteering that may have been unlikely to occur in the absence of the page. Donating to the boats taking supplies into the area, giving assistance to the tourism accommodation rebuild, sharing information online, helping with the sourcing of fuel, and assisting with the Food Bank were the volunteering activities most heavily influenced by TFWCH. The results also give a good understanding of how much extra volunteering occurred due to the influence of the page, with many extra volunteers being ‘recruited’ for the online sharing of information, the giving of direct donations, and the provision of support or praise to those affected and involved.

Page impact: Questionnaire 2

The same items for Q2 will now be explored.²⁰⁶ Figure 7.9 presents the results of the impact of TFWCH on volunteering for businesses. As done above, Table 7.17, 7.18 and 7.19 present the results in rankings according to most prevalent volunteering activity, activity most impacted by TFWCH, and highest number of extra volunteers recruited, respectively.

²⁰⁶ To see the results before the categories were condensed down see Figure 5 in the Appendix.

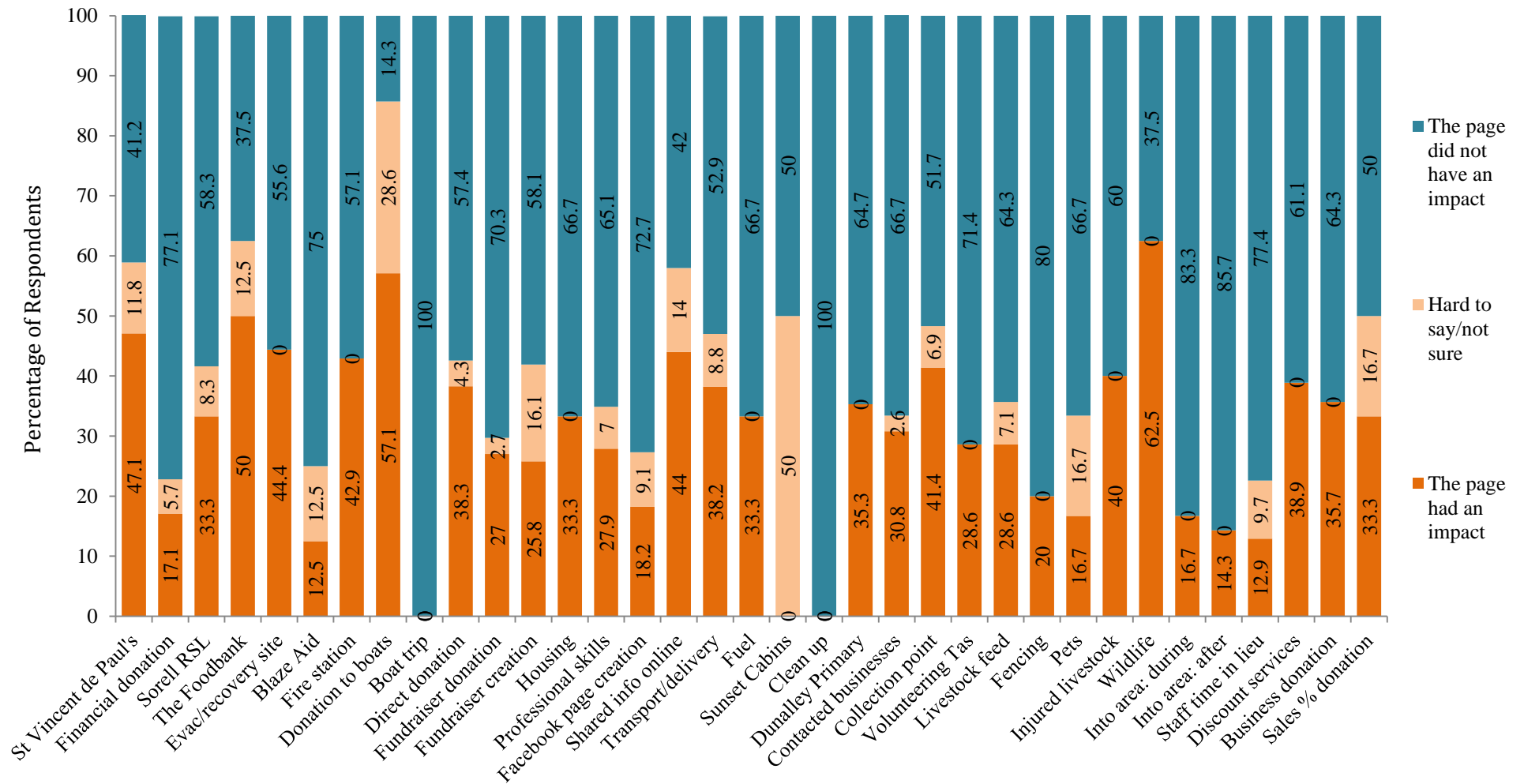


Figure 6.9. Questionnaire 2: Impact of TFWCH on volunteering (n = 82)

Table 6.17. Questionnaire 2: Volunteering activities ranked according to prevalence

Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced	Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced
Shared info online	50	44.0%	22	Sorell RSL	12	33.3%	4
Direct donation	47	38.3%	18	Into area: during	12	16.7%	2
Professional skills	43	27.9%	12	Sales % donation	12	33.3%	4
Contacted businesses	39	30.8%	12	Facebook page creation	11	18.2%	2
Fundraiser donation	37	27.0%	10	Housing	9	33.3%	3
Discount services	36	38.9%	14	The Food Bank	8	50.0%	4
Financial donation	35	17.1%	6	Blaze Aid	8	12.5%	1
Transport/delivery	34	38.2%	13	Wildlife	8	62.5%	5
Fundraiser creation	31	25.8%	8	Donation to boats	7	57.1%	4
Staff time in lieu	31	12.9%	4	Volunteering Tas	7	28.6%	2
Collection point	29	41.4%	12	Fuel	6	33.3%	2
Business donation	28	35.7%	10	Clean up	6	0.0%	0
Evac/recovery site	18	44.4%	8	Pets	6	16.7%	1
St Vincent de Paul's	17	47.1%	8	Fencing	5	20.0%	1
Dunalley Primary	17	35.5%	6	Injured livestock	5	40.0%	2
Fire station	14	42.9%	6	Boat trip	2	0.0%	0
Livestock feed	14	28.6%	4	Sunset Cabins	2	0.0%	0
Into are: after	14	14.3%	2				

Table 6.18. Questionnaire 2: Volunteering activities ranked according to page impact

Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced	Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced
Wildlife	8	62.5%	5	Contacted businesses	39	30.8%	12
Donation to boats	7	57.1%	4	Livestock feed	14	28.6%	4
The Food Bank	8	50.0%	4	Volunteering Tas	7	28.6%	2
St Vincent de Paul's	17	47.1%	8	Professional skills	43	27.9%	12
Evac/recovery site	18	44.4%	8	Fundraiser donation	37	27.0%	10
Shared info online	50	44.0%	22	Fundraiser creation	31	25.8%	8
Fire station	14	42.9%	6	Fencing	5	20.0%	1
Collection point	29	41.4%	12	Facebook page creation	11	18.2%	2
Injured livestock	5	40.0%	2	Financial donation	35	17.1%	6
Discount services	36	38.9%	14	Into area: during	12	16.7%	2
Direct donation	47	38.3%	18	Pets	6	16.7%	1
Transport/delivery	34	38.2%	13	Into are: after	14	14.3%	2
Business donation	28	35.7%	10	Staff time in lieu	31	12.9%	4
Dunalley Primary	17	35.5%	6	Blaze Aid	8	12.5%	1
Sorell RSL	12	33.3%	4	Clean up	6	0.0%	0
Sales % donation	12	33.3%	4	Boat trip	2	0.0%	0
Housing	9	33.3%	3	Sunset Cabins	2	0.0%	0
Fuel	6	33.3%	2				

Table 6.19. Questionnaire 2: Volunteering behaviours ranked according to volunteers gained

Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced	Volunteering behaviour	Volunteers	Page had an impact on X%	Volunteers influenced
Shared info online	50	44.0%	22	Sorell RSL	12	33.3%	4
Direct donation	47	38.3%	18	Sales % donation	12	33.3%	4
Discount services	36	38.9%	14	The Food Bank	8	50.0%	4
Transport/delivery	34	38.2%	13	Donation to boats	7	57.1%	4
Professional skills	43	27.9%	12	Housing	9	33.3%	3
Contacted businesses	39	30.8%	12	Into are: after	14	14.3%	2
Collection point	29	41.4%	12	Into area: during	12	16.7%	2
Fundraiser donation	37	27.0%	10	Facebook page creation	11	18.2%	2
Business donation	28	35.7%	10	Volunteering Tas	7	28.6%	2
Fundraiser creation	31	25.8%	8	Fuel	6	33.3%	2
Evac/recovery site	18	44.4%	8	Injured livestock	5	40.0%	2
St Vincent de Paul's	17	47.1%	8	Blaze Aid	8	12.5%	1
Financial donation	35	17.1%	6	Pets	6	16.7%	1
Dunalley Primary	17	35.5%	6	Fencing	5	20.0%	1
Fire station	14	42.9%	6	Clean up	6	0.0%	0
Wildlife	8	62.5%	5	Boat trip	2	0.0%	0
Staff time in lieu	31	12.9%	4	Sunset Cabins	2	0.0%	0
Livestock feed	14	28.6%	4				

These results are useful for exploring which volunteering behaviours were the most prevalent. Twelve different volunteering activities were completed by between 28 and 50 businesses or organisations, with sharing information online, giving a direct donation and offering professional skills for free being the most common. These results also show which volunteering behaviours were the most influenced by the TFWCH page, which helps inform about the types of volunteering that may have been unlikely to occur in the absence of the page – in this case, TFWCH had a the greatest impact on the volunteering activities of assisting with affected wildlife, donating to the boats going into the area, and helping the Food Bank. The results also give a good understanding of how much extra volunteering occurred due to the influence of the page. For business and organisations that had helped, there were between 10 and 22 extra volunteers ‘recruited’ to help for each of nine different activities.

Page impact: Overall

The three pie charts below (Figures 7.10 – 7.12) summarise how much of an impact TFWCH had overall on individual volunteers, business/organisation volunteers, and then the two groups combined.²⁰⁷

²⁰⁷ To see the results before they were condensed down from 5 categories to 3, see the Appendix, Figures 6 – 8.

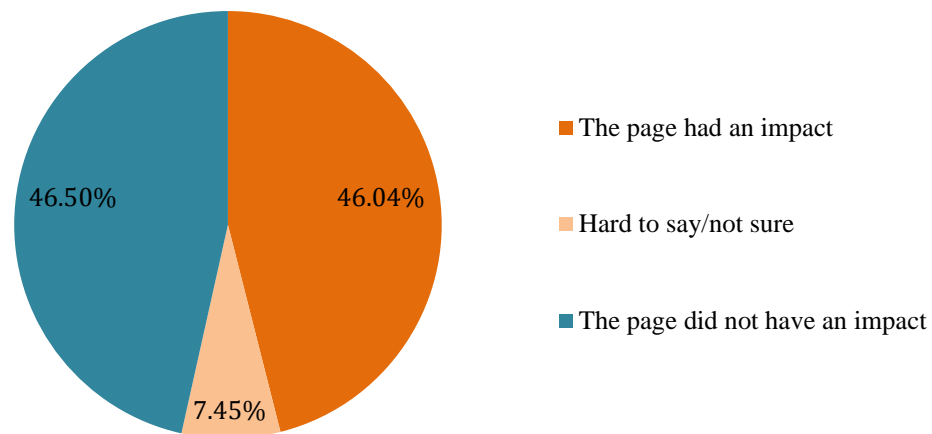


Figure 6.10. Questionnaire 1: Impact of TFWCH on all volunteering ($n = 490$)

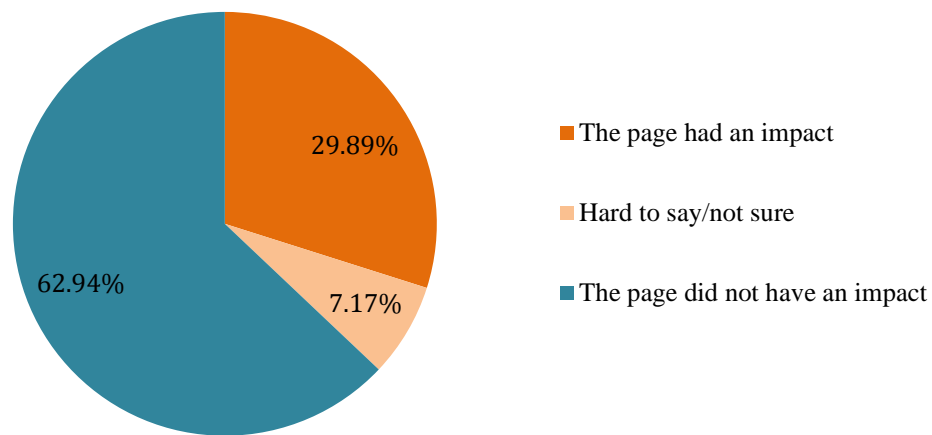


Figure 6.11. Questionnaire 2: Impact of TFWCH on all volunteering ($n = 82$)

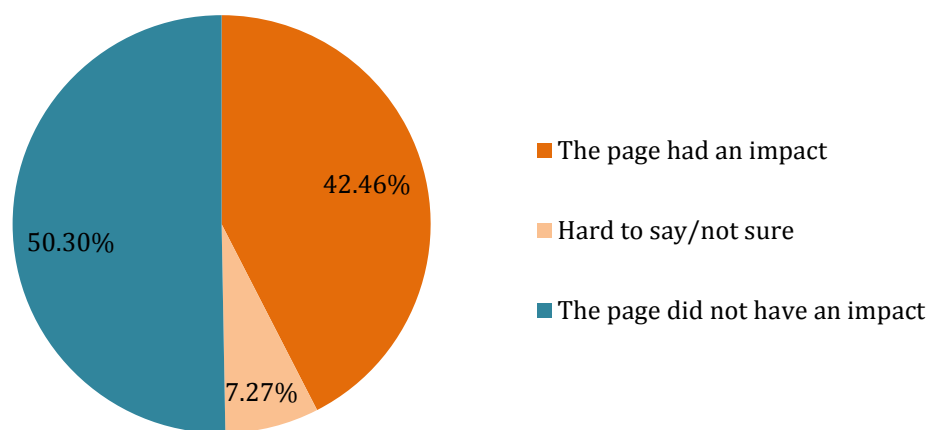


Figure 6.12. Questionnaire 1 and Questionnaire 2 combined: Impact of TFWCH on all volunteering ($n = 572$)

Overall, TFWCH had an impact on just over 40% of all volunteering behaviours across both groups of contributors. These results are important as they demonstrate how much of an impact social media can have on the behaviours of emergent groups. It gives some indication of the resources that could have been lost without an online emergent group such as TFWCH.

It is important to note that TFWCH had a much greater impact on individuals who volunteered; impacting 46.0% of all volunteering behaviours, compared to the impact on businesses, impacting 29.9% of all behaviours. This suggests that organisations had intended to assist during the disaster anyway, and had means to do so.

Traditional volunteering

One of the items asked of the respondents completing Q1 was if they had registered with Volunteering Tasmania. Some 57 (8.4%) of the sample ($n = 572$) indicated that they had done so, and 515 (76.0%) of the sample said that they had not done so.

The next item these participants were asked was how much of an impact the TFWCH page had on their decision to register with Volunteering Tasmania. Table 7.20 below explores these results.

Table 6.20. *Questionnaire 1: Impact of TFWCH on choice to volunteer for Volunteering Tasmania (n = 57)*

If you put your name down, would you have done this without the <i>Tassie Fires - We Can Help</i> Facebook page?	Frequency (Percentage)
No. No way!	4 (7.0%)
Probably not...	14 (24.6%)
Look I probably would have. But the page enabled me to do more.	11 (19.3%)
Hard to say. Not sure.	4 (7.0%)
Yeah I probably would have.	12 (21.1%)
Yes I definitely would have.	12 (21.1%)
Total	57 (100.0%)

The results show that there was a relatively even spread between people who would have put their names down regardless of TFWCH (42.2%) and those who were impacted positively by the page to register (50.9%).

The question these respondents were then asked was designed to explore whether they had been able to take part in any volunteering through Volunteering Tasmania as a result of registering with the organisation.

Table 6.21. *Questionnaire 1: Contact from Volunteering Tasmania for those who registered to volunteer (n = 57)*

If you did put your name down with Volunteering Tasmania, have they contacted you yet?	Frequency (Percentage)
Yes! I have already done stuff!	10 (17.5%)
Yes but I haven't done anything yet.	25 (43.9%)
No I haven't heard from them.	22 (38.6%)
Total	57 (100.0%)

In this analysis, Volunteering Tasmania is being used a proxy for traditional volunteering. These results are important for demonstrating how traditional volunteering may not have had the same sort of appeal during times of crisis for this

particular cohort. To extrapolate, if only 8.4% of the whole sample had put their name down with Volunteering Tasmania, and only 17.5% of that 8.4% of people had actually already actively volunteered for Volunteering Tasmania, it represents a small percentage of the group who had already actively served for the organisation: 1.7%. This has important implications when considering how to motivate people to engage with formal volunteer agencies after a disaster event, especially when competing with social media.

Page utility: Questionnaire 3

Those completing Q3 (bushfire-impacted individuals) were asked to complete a list containing the numerous ways they had sought help via TFWCH during and after the disaster (see Table 7.22, and for a full description of each see Table 15 in the Appendix). Respondents were asked to rate on a Likert scale how important the page was for assisting them with each of the items on that list, for example, “Did the TFWCH page help you with this: Sourcing unofficial information from the community?” Figure 7.13 then presents the results.²⁰⁸

²⁰⁸ The results are presented in percentages rather than frequencies. This is because one respondent only completed the first page of questions for this scale before ceasing to take part. 44 people completed Pages 1 and 2 of Q3, and one person only completed Page 1 of Q3. Thus for the first 11 items, there are 44 respondents. For the rest of the items, there are 43 respondents. For the full results, see Table 16 in the Appendix.

Table 6.22. Questionnaire 3: List of potential uses of TFWCH

Assistance sought	
Getting donations of tools/items I lost that I need for work	Sourcing unofficial information coming from the community
Being able to pass on information to someone else online	Being able to pass on information to someone else in the offline world
Being able to get information on the condition of my house/shack	Feeling like I was still connected to the outside world
Getting help with fencing from Blaze Aid/finding out about Blaze Aid	Getting help with fencing from the community/elsewhere
Be able to get information on the actual fires	Getting a special item/gift donated to a child of mine
Finding a place to stay/live	Getting animals/livestock moved or housed during the crisis
Getting some good advice on looking after my mental health and wellbeing	Getting something delivered to me via truck/boat when the roads were blocked
Knowing the Sorell RSL was up and running and what they were doing there	Knowing about the Food Bank and what they were doing
Replacing an item/items lost in the fires	Getting someone with professional skills to help me with something during the crisis
Getting help locating a missing pet	Receiving a direct \$\$ donation (not through a charity as such)
Being able to find information on a missing person/someone I hadn't heard from	Getting information about what financial assistance I might be entitled to
Sourcing official information from Vinnies/Red Cross/Salvos or other "official" organisations	Knowing what was available at Vinnies
Knowing there was money from the Red Cross/other appeals and how I could get it	Getting help with food for livestock

Table 7.22. Questionnaire 3: List of potential uses of TFWCH (continued)

Assistance sought	
Getting information about the nearest safe places/recovery centres/evacuation sites	Getting help with injured/missing livestock
Getting important information from the Government	Getting safety information about returning to my property/info on asbestos/clean water tanks
Getting information about the clean-up	Getting another pet/animals
Receiving support/encouragement/praise from a stranger	Hearing about/using another Facebook page that had been set up about the fires
Getting a fuel/petrol donation or assistance with fuel	Having some work/clean-up/repairs done on my property
Getting help/donations/gifts to do with Dunalley Primary School	Getting assistance from people working through Volunteering Tasmania
Getting help with injured wildlife I came across	Getting someone in to the affected area to help or assist me when the roads were blocked
Getting someone in to the affected area to help or assist me AFTER the roads were re-opened	Getting general support

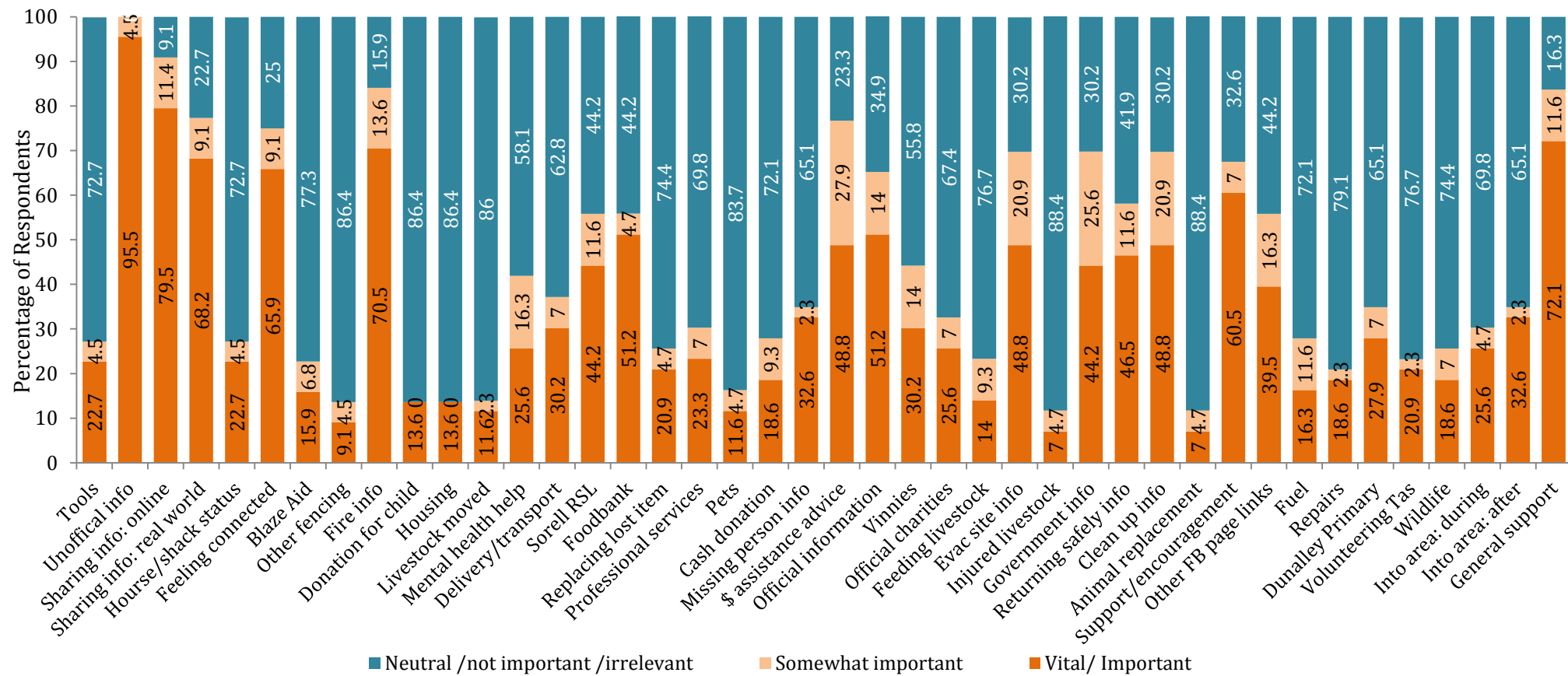


Figure 6.13. Questionnaire 3: TFWCH importance across a range of utilities (n = 44)

The most important use of TFWCH to the affected community was as a source of unofficial information. Other important uses were for sharing information online, receiving general support, sourcing information about the fires, for sharing information in the offline space, and for feeling connected to others during the disaster.

Page impact is now explored. As can be seen in Table 7.23, this was calculated simply by condensing the three responses down to two, to give a simple measure of if the page was considered to be important or unimportant to the bushfire-affected individuals who completed this questionnaire. The results are presented in Table 7.24.

Table 6.23. Questionnaire 3: Creating the Page Impact indicator

How important was TFWCH?	New indicator: "Page Impact"
"Somewhat important"	→ "The page had an impact"
"Vital/important"	
"Neutral/not important/irrelevant"	→ "The page did not have an impact"

Table 6.24. Questionnaire 3: Most important uses of TFWCH (n = 44)

Assistance sought	%	Assistance sought	%	Assistance sought	%
Sourcing unofficial info	100.0	Sorell RSL	55.8	Tools	27.2
Sharing info: online	90.9	Other FB page links	55.8	House/shack status	27.2
Fire info	84.1	Vinnies	44.2	Replacing lost item	25.6
General support	83.7	Mental health help	41.9	Wildlife	25.6
Sharing info: offline world	77.3	Delivery/transport	37.2	Feeding livestock	23.3
Financial assistance/advice	76.7	Missing person info	34.9	Volunteering Tas	23.2
Feeling connected	75.0	Dunalley Primary	34.9	Blaze Aid	22.7
Government info	69.8	Into area: after	34.9	Repairs	20.9
Evac site info	69.7	Financial support: official charities	32.6	Pets	16.3
Clean-up info	69.7	Professional services	30.3	Other fencing	13.6
Support/encouragement	67.5	Into area: during	30.3	Donation for child	13.6
Official info	65.0	Cash donation	27.9	Housing	13.6
Returning safely info	58.1	Fuel	27.9	Injured livestock	11.7
The Food Bank	55.9	Livestock moved	27.5	Animal replacement	11.7

Note: % = percentage of respondents who had identified that the page was either somewhat important, important, or vital to them with this particular assistance

Bearing in mind the limitations that were mentioned earlier of extrapolating from this sample, the page had a significant impact on these people's ability to source unofficial information during the disaster, as 100.0% of respondents said that the page had an impact on this aspect. TFWCH was also important for sharing information online (90.9% said the page was important), getting information about the fires (84.1%), getting general support (83.7%), and sharing information in the offline world (77.3%).

The least important uses of the page to people were getting help with fencing through means other than Blaze Aid (only 13.6% said this was important), sourcing a donation for a child (13.6%), getting assistance with housing (13.6%), getting assistance with injured livestock (11.7%), and getting livestock or pets replaced (11.7%).

It is important to note that even for helping behaviours that were not very important to these respondents, such as getting assistance with injured wildlife, still 25.6% of respondents, that is, over a quarter of the group, indicated that the page had an impact or was useful for them for this particular task.

Discussion

As with both Chapter 6 and Chapter 5, this discussion section will only contain a brief summary of the results above. The results will be examined in Chapter 9 in light of the research questions.

Around a fifth of all the businesses that filled in Q2 were not based solely in Tasmania (see Table 7.9). This supports the findings from Chapter 6²⁰⁹ that people

²⁰⁹ See Chapter 6, The Response

were helping not just locally but globally, and supports the findings in Chapter 5²¹⁰ that fans of the page came from all over the world.

Facebook was the key referrer to the TFWCH page (see Table 7.10), as reflected in Chapter 5.²¹¹ However it is important to note that for people who had been impacted by the fire, friends and family were a very important source of referral to the TFWCH page. This suggests that it is important to encourage people to inform affected friends and family about what support is available as they may be unaware.

The Facebook page was considered extremely important (see Figures 7.1 to 7.3), and the most important source of information of all, especially for bushfire-affected people. Other social media pages or platforms were not considered as important. This emphasises that it is not the social media platform itself that is important, but how it is managed and run, suggesting that aspects such as emergent group leadership and social media apomediation are key variables; issues discussed in Chapter 9.²¹²

As expected the TFS website and the ABC were considered very important sources of information, as were friends and family. Twitter in particular was not considered important at all. This is important as much of the research in this field is conducted on Twitter and not Facebook.

Emergency services on the ground were only considered extremely or very important to about half of those affected; community meetings to less than two fifths of those affected, and services doorknocking to less than a fifth of those affected. The results suggest a need to look at better ways of reaching the affected community during a disaster.

²¹⁰ See Chapter 6, Page Users

²¹¹ See Chapter 6, Page Likes

²¹² See Chapter 9, Research Question 4

These results are interesting when looking at results from the study by Taylor et al. (2012). Respondents (who were also recruited mainly through Facebook) were asked how likely they were to use a number of different communication channels in the event of a disaster. 75% said they would go to Facebook, 85% they would go to television news, 75% would go to online news and weather, 56% would go to local radio, 31% said they would go to Twitter. Thus while there are clear differences in the importance of different media, the utility of Facebook is apparent.²¹³

This analysis has given a valuable insight into the behaviours of spontaneous volunteers during a disaster. This analysis has shown that businesses and organisations focus on different volunteering activities to individual volunteers assisting as part of an emergent group.

When examining the list of volunteering behaviours engaged in by the community and businesses (Table 7.11), many of the activities are not those normally taken on by official organisations. This provides support for the argument that community engagement and shared responsibility should be encouraged in an emergency situation, to fill in the gaps left by traditional responders.

An issue with spontaneous volunteers is matching them to suitable jobs and tasks, and it can be seen through this analysis that using the platform of social media, individuals were able to self-select for tasks they were suited to themselves. Furthermore, there is evidence in this analysis for the page increasing the amount of volunteering that would have occurred in the absence of the page. Considerable ‘extra’ volunteering took place as a result of this page. This finding provides evidence for a page such as this helping to facilitate people’s desire to help into real

²¹³ It is worth reiterating that this sample was recruited primarily via Facebook, which is likely to have had an impact on the results, and limits the generalisability of the findings to the population that does not use Facebook.

action, or inspiring people to help when they may not have done so. The page was able to promote volunteering activities that were less well known.

There were some interesting results for people's decision to volunteer in a traditional way with Volunteering Tasmania (see Tables 7.20 and 7.21). Few people who utilised TFWCH registered with Volunteering Tasmania, and even fewer were actively used by the organisation. The message is that volunteers (who wish to be affiliated volunteers) need to be trained before an emergency so then they can be used by official volunteering agencies. This message is strong and needs to be reiterated²¹⁴. Strategies for dealing with volunteers are discussed in Chapter 10.²¹⁵

This analysis has given insight into what bushfire-affected people were coming to an online emergent group for (see Table 7.24). Largely they were seeking an information exchange and general support, followed by financial support and feeling connected. A good understanding of the most commonly needed items and assistance and the less commonly needed ones was established.

A better understanding of the information and media needs of people during a crisis, as well as the activities of spontaneous volunteers, the needs of bushfire-affected people, and how social media can facilitate these things, has been gained. The final data chapter will start to explore the qualitative items from the same questionnaires that were explored in this chapter.

²¹⁴ Bureaucracy can be a barrier to the recruitment of volunteers, which is why trying to reduce those barriers through things like flexible volunteering options and making training flexible are important. Especially when people now see that they can volunteer in a disaster in a flexible and self-directed way, it may be more challenging to get them to operate as traditional volunteers.

²¹⁵ See Chapter 10, Recommendations for Emergency Management

7. Chapter 8 – Qualitative Analysis of Survey Data

Introduction

In the previous chapter, the results from the three questionnaires were explored, to have a better understanding of how the community was using the TFWCH Facebook page. In this chapter, the responses to the four open-ended questions that were a part of the same questionnaires are thematically analysed. This analysis was conducted in order to explore how the community who had utilised the TFWCH Facebook page felt about it; that is, if they felt that it had contributed positively to their response and recovery, therefore in turn, enhancing community resilience.

Method

Research Design

The current study used a retrospective case study design, using the results from three online questionnaires administered after a bushfire event.

Data analysis

This data set was analysed using thematic analysis, which has been explained in Chapter 6.²¹⁶

Participants

In Chapter 7²¹⁷ the recruitment process and the participants have been described in detail.²¹⁸

²¹⁶ See Chapter 6, Research Design

²¹⁷ See Chapter 7, Method

Materials

The questionnaires have also been described in Chapter 7.²¹⁹ This chapter is concerned with the four open-ended questions that concluded each questionnaire:²²⁰

Item 1: “Any details/comments/clarification you would like to add? Or is there another way you helped that I haven’t asked you about? I would love to hear more”

Item 2: “What do you think the *Tassie Fires - We Can Help* page did well? What was good about the page? Feel free to waffle on!”

Item 3: “What do you think the *Tassie Fires - We Can Help* Facebook page could have done better? How could it be improved? Keep waffling!”

Item 4: “There were other good pages on Facebook about the fires. Did any help you? Which were good? Were any pages ‘not-so-good’? How were they different to the *Tassie Fires - We Can Help* page? Again – feel free to waffle!”

Procedure

Consistent with the thematic analysis discussed in Chapter 6,²²¹ the guidelines put forward by Braun and Clarke (2006) were followed for this analysis. Contrary to the order in which these results are presented in this thesis, the analysis presented here was conducted *prior* to the analysis presented in Chapter 6. Each qualitative analysis was conducted independently of the other.

The data were imported into NVivo from a Windows Excel spreadsheet. All responses were firstly read in detail, and then coding was completed in lots, analysing a small set of responses from each item and each questionnaire

²¹⁸ To provide context, although this analysis appears later in this thesis, it was conducted prior to the first qualitative analysis, which comprises Chapter 6.

²¹⁹ See Chapter 7, Method

²²⁰ In regards to the fourth item, it is not known exactly how many other pages were created in response to the fires. In the previous analysis a number of individuals and businesses identified that they had created a page; so it is assumed that a number were created. Often the community does create multiple pages during an emergency or disaster. For example, Vieweg et al. (2008) found more than 500 pages had been created after the Virginia Tech massacre.

²²¹ See Chapter 6, Procedure

(approximately 100 at a time) before moving to a different item from a different questionnaire. Entire quotes were kept in the coded section of data, so that context was not lost, and to aid later comprehension. Almost all the information that had been provided in response to those four items was useable. Throughout the analysis, notes were being recorded in a journal.

The codes were reviewed a number of times at various stages of the analysis, and unnecessarily duplicated codes were removed and their contents recoded. At the halfway point in the analysis the 378 initial codes were also printed and sorted manually, and duplicates were removed. These initial codes were sorted roughly into clusters of similar information. This resulted in the creation of 42 clusters, with each containing between 2 and 10 codes, except for one cluster that contained 45 miscellaneous codes.²²²

The end of the manual sorting stage had seen 188 codes removed, leaving 190 remaining. Coding in NVivo then resumed, and the coding of the final set of quotes was completed. By the conclusion of this stage of the analysis, there were 195 codes.²²³ At this point, Step 3 of the Braun and Clarke model (2006) was underway, and the analysis moved towards starting to look for recurring themes that represented the codes in an accurate way.

²²² It is important to note that this manual sorting was part of Step 2 of Braun and Clarke's model (2006) ('generating initial codes') rather than Step 3 of the model ('looking for themes'). Themes were not being searched for at this point. Rather, the focus was on removing duplicate codes, and crosschecking the codes against each other. The fact that those 42 *clusters* of codes mentioned above emerged was simply part of this sorting process.

²²³ It would be erroneous to suggest that only five codes were added in the second half of the analysis since the half time review, as while coding was taking place, review was still occurring: the addition of new codes, the removal of old codes, and the merging of old codes. However it can be stated that only a small number of codes were added at this point in time. This is a positive sign when considering issues of consistency, reliability and saturation.

Bringing the codes together into coherent themes proved time consuming, challenging, and unrewarding.²²⁴ A number of different potential frameworks for organising the codes were considered, and none were considered adequate. Thus a copy of the codes was again printed and sorted manually to aid this part of the process, and the following overarching categories were considered:

- What people believed the page ‘did’ or ‘was’ (both positives and negatives)
- Administration guidelines for how to manage a page – a ‘recipe’
- Consequences and outcomes
- Underlying assumptions/underlying psychological or community processes
- Issues, problems and facts

From there, the codes were reconsidered, and manually organised again, this time into three overarching categories:

- Those facilitating coping, adapting, and resilience
- Those leading to vulnerability and problems
- Miscellaneous

Each of the existing codes were then re-categorised to fit into one of those three overarching categories.²²⁵ In this way, two tables of initial themes had been created – one for the ‘positive’ codes (Table 8.1 below) and one for the ‘negative’ codes (Table 8.2 below).²²⁶

²²⁴ While the process described was indeed complex, the data analysis approach of being data-driven rather than theory-driven was appropriate. It is believed this approach contributed to the overall quality of the analysis, reducing bias, as the researcher was not sensitized to or looking for particular content in the data.

²²⁵ This step involved drawing up a table on two sheets of A4 paper: one to contain the codes that would fit under the category of those facilitating coping, and those fitting under the category of leading to vulnerability. Each code was considered and written on the relevant sheet by being summarised by a single word or two words. If the new code being reviewed did not fit into a category that was already on the sheet, a new word was written down. If the new code fitted in with a word that was already on the list, but represented something slightly different, it was written next to the pre-existing word. This explains why the following Tables, Tables 8.1 and 8.2, contain a diffuse collection of potential ideas, before they became more organised and structured.

²²⁶ These three preliminary overarching themes were also transformed into models, which appear in the Appendix (Figures 9 – 11). From there, three other models were created: firstly by hand, and secondly using the model function in NVivo. Again these were to simply aid the process of establishing how themes could be organised out of the codes. These three models also appear in the Appendix: ‘the opportunities of social media’ (Figure 12), ‘community aspects’ (Figure 13) and ‘essential ingredients to running a successful page’ (Figure 14).

Table 7.1. Qualitative Thematic Analysis 2: Initial codes relating to resilience and successes

Those facilitating coping, adapting, and resilience	
Specificity, connecting, linking, directness	Grassroots, local, personal
Empowerment, a voice, autonomy, self-sufficiency	Inclusivity, diversity, acknowledgment, respectfulness, equality, all can help, no job too small
Communication facilitator, broadcaster, amplification	Harnessing and harvesting of goodwill, contagious goodwill, hunger to help
Communication method, skills, 2-way, peacekeeping, no frills, professional	Hope, positivity, good attitudes, right tone, appreciation, gratitude
Information gathering, sourcing, sharing, exchanging	Psychological assistance, inspiring stories, motivation, volunteering rewarding, support, encouragement, abandoned
Community spirit, cohesion, team building, creation of a new ongoing community, bringing people together	Accuracy, verification, honesty, integrity, credibility, trust
Social media itself, free, virtual, at its best	Crowdsourcing, people power, networking, viral, global, audience collaboration
Flexibility, adaptability, spontaneity	Coordination, organisation, direction, accessibility
Central hub, lifeline, one stop shop, reduce burden on 000, save time by having things all in the one spot	Novel, unique, niche, gap filler, achieved what could not have been achieved without it
Timeliness, speed, up-to-date	Proud, grateful, ownership, thankful of page itself
Utility, effectiveness, influence, success, actually helpful, contributed positively	

Table 7.2. Qualitative Thematic Analysis 2: Initial codes relating to vulnerability and problems

Those leading to vulnerability and problems
Expectations, roles, questions about operation in this space at all
Cheats, scammers, donations, money concerns
Disorganisation initially, communication confusion, conflicting information
Dislike or distrust of social media
Basic administration improvements, improvements with Facebook structure
Excessive donations, duplication, repetition, sufficiency
Feeling ignored
People not understanding the system, confusion
Verification and accuracy issues
Information overload
Rumours
Getting loans back
Advertising, taking advantage
Safety, risks, duty of care, heroism
Negative people upsetting the mood
General recovery issues

Next, as recommended by Braun and Clarke (2006) as part of Step 4, every extract for each code was re-read, to confirm a coherent fit. It was clear that a succinct model to sum up the data was not going to be possible with this data: this was a juggling act between preserving the nuances in the data and trying not to lose detail, with trying to successfully present all the key issues raised in the data in a succinct, parsimonious way. Thus a decision was made to re-analyse the data within each code, from scratch, one more time, emphasising the generation of more specific rather than general codes.

After all codes had been re-worked, the new set included 675 subordinate codes, as opposed to the original 195 codes. At this point in time Step 5 of Braun and Clarke's guidelines (2006) were followed, and the codes were finalised into themes, as they were defined, named and organised.

Thus the themes had been established, and were organised into three levels. Within each of the overarching themes were a number of key themes and within each of those key themes there were a number or subordinate themes.

Results

Table 8.3 below presents the overarching themes as a summary. Then each is explored individually, along with the relevant key themes and subordinate themes.

Tables 17 through 34 in the Appendix present the full results.

Table 7.3. Qualitative Thematic Analysis 2: Overarching themes

Overarching theme	Description
The situation	The scenario that had been created due to a bushfire emergency
The foundations	The elements either already in place, dormant, or that had been triggered by the bushfire emergency. The conditions that paved the way for the creation of TFWCH
Positive outcomes	Positive results and consequences of the page
Negative outcomes	Negative results and consequences of the page
Positive page attributes	Positive and functional qualities, processes and roles of the page
Negative page attributes	Negative and dysfunctional qualities, processes and roles of the page
Psychological state creation	Psychological states created
Administrator attributes	Qualities and skills of the page Administrator
The page as comparative or superlative	The page perceived to be ‘more’ or ‘the most’ on a range of scales and qualities
Gratitude and praise	General gratitude, applause and positivity about the page
Other pages: positives	Positive and functional qualities/outcomes of other websites and social media pages
Other pages: negatives	Negative and dysfunctional qualities/outcomes of other websites and social media pages
The official response: positives	Positive and functional qualities/outcomes of the official response to the bushfire emergency
The official response: negatives	Negative and dysfunctional qualities/outcomes of the official response to the bushfire emergency
Contributions	Descriptions about how people helped
Page usage	Descriptions about how people were using the page
Social media: positives and negatives	Positive and negatives associated with the medium of social media
Looking to the future	Lessons learnt; improvements for the future

Key themes under each overarching theme

As applied in the qualitative analysis in Chapter 6,²²⁷ while it would be usual practice to provide a verbatim quote for each main concept, due to the large number of key themes, only select quotes will be included. Some themes mirror those that emerged in the initial qualitative analysis presented in Chapter 6. This is promising for validation of many of the key themes, but to avoid repetition any recurring themes will be introduced but not explored in detail.

Before exploring these, Figure 8.1 is introduced. In order to keep the extensive number of themes in a manageable format, this figure incorporates and summarises many of the themes that emerged in this analysis, to help guide this section of this thesis.

²²⁷ See Chapter 6, Results

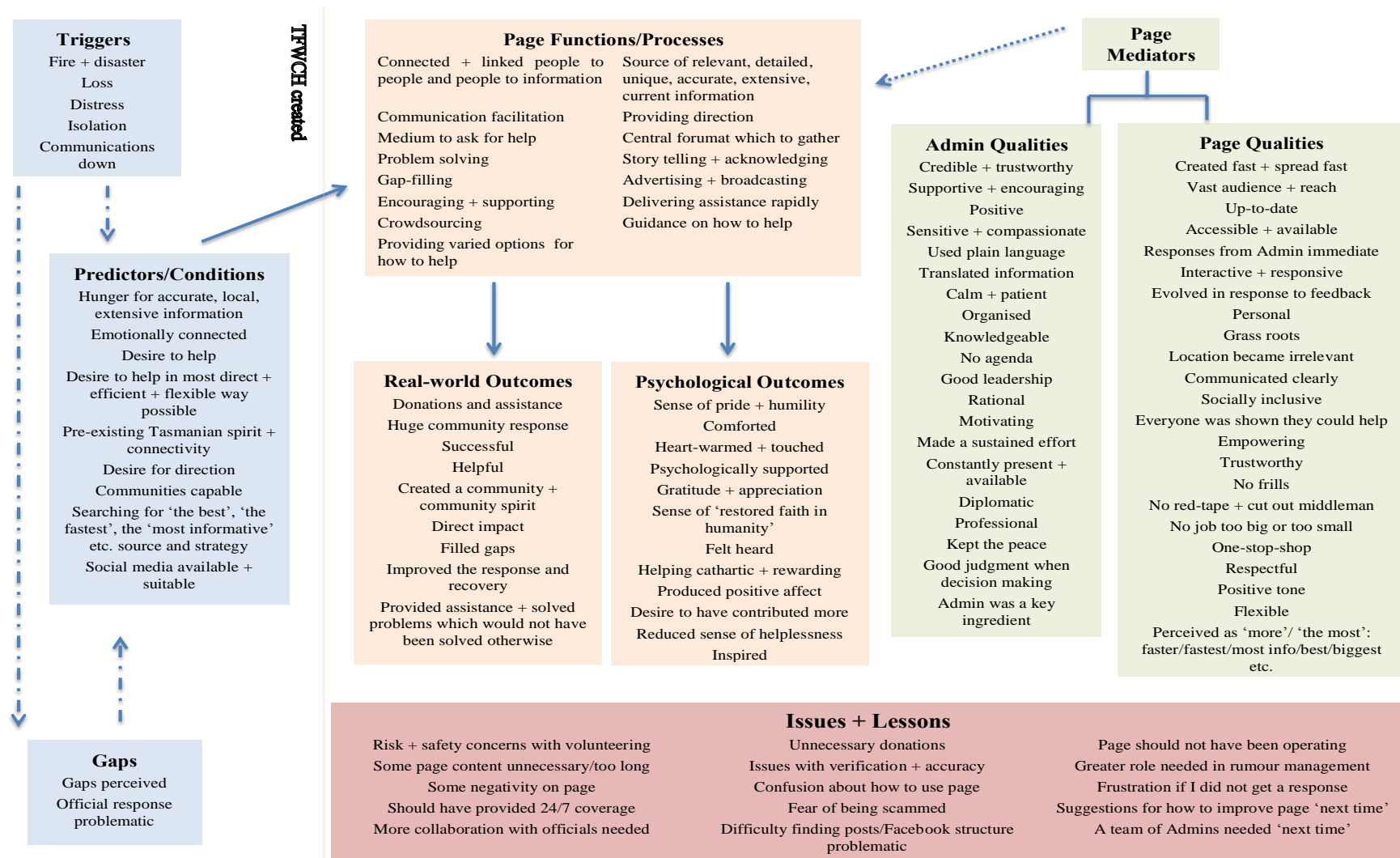


Figure 7.1. Qualitative Thematic Analysis 2: Triggers, mediators, functions, outcomes and lessons of TFWCH

The situation

This theme contains key themes and subordinate themes that contribute to the *Triggers* component of Figure 8.1: that is, factors that instigated the creation of the TFWCH page, and factors that may explain why people were turning to it, and why it was sustained.

In the responses to the open-ended items in the questionnaires, people spoke about what they had experienced, seen, felt or heard as a result of the disaster, noting that the situation was stressful, there was chaos, and that they felt emotional, stretched, scared, and overwhelmed. Respondents described the fires as a catastrophe, and as an event that was traumatic and devastating. The whole event was reported to be distressing, for both those people in and out of the affected areas.

People noted that communication was difficult at this time. Power was down, phone lines were down, and people's phones were flat. It was difficult to get information from the fire-affected area. Some people had the capacity for telecommunications, although even this was intermittent.

I live on the [location] and was trapped on the peninsula during the fires, as I live on a hill and have a small generator, (used to recharge once we got fuel) I was one of very few who got some patchy Internet, I was able to pass on messages to locals of what was happening in the outside world, and pass on some messages of what we were short of, as well I was able to see what was needed re meeting boats etc and deliver to the port shop [sic]

People were separated, stranded and isolated. Often individuals were isolated from their friends and family, being behind the fire front, or, they were isolated from each other with some people being on one side and others being on the other side of road blocks.

Respondents commented that the fire itself wrought havoc. Houses were lost, or damaged, or houses survived but outhouses and other parts of properties such as fencing were lost. There were people who experienced fighting the fires themselves,

and defending their homes during the disaster. There was no running water or power for days. Even though some help was available from Blaze Aid, people found the aftermath of the fires so extensive that sometimes that help did not even “touch the sides,” as the expense of rebuilding such as replacing fences was so immense.

The foundations

This theme contains key themes and subordinate themes that contribute to the *Predictors/Conditions* component of Figure 8.1. This includes the themes that were believed to contribute to the conditions needed for the TFWCH Facebook page to be created and sustained, and supported and used by the community.

First and foremost, people strongly felt that there were gaps in the official response. People commented that contacting the authorities and the formal responders was almost impossible, and that it seemed to them that it was almost like no response at all was coming from “the top.” People felt that “red tape” was limiting the speed and efficacy of the response, and they found it frustrating.

People said on the questionnaires that they were searching for information during the disaster, and they wanted as much as they could possibly get, particularly local information. One of the places they inevitably turned to was social media. People turned to it early on in the disaster, and indicated that it proved useful to them.

People identified that they felt emotionally connected to what was going on: they were sad, devastated and moved by the disaster. Recurring psychological states mentioned by the respondents were feeling helpless, useless or hopeless, and wanting to do something to alleviate these emotions. People emphatically said that they had a strong and genuine desire to help, bordering on desperation.

Getting information about how i was able to help out people affected by the fires. That is how i went to volunteer at the showgrounds and took my children to learn how they could help out other this way. I am still at the showgrounds even now as I always help people when they need it [sic]

The participants noted that there were barriers when it came to helping.

Firstly, they said they wanted to help, but did not know how. People were also seeking direction, as they did not want to “get in the way,” thus they appreciated that TFWCH gave them direction.

Posted up to date and accurate information but also provide the space for people who wanted to help and didn't know how - the opportunity to offer their services in the right way. [sic]

channelling community good will into things that were actually helpful [sic]

People also pointed out that they did not want to help indiscriminately. They wanted to find out specifically what was needed before they did anything. People felt a strong need to connect with people in need quickly, and to help them directly and specifically, something they found that TFWCH could assist with.

It facilitated direct and personal assistance which appeals in a way that donating via an impersonal 3rd party NGO might not. [sic]

People mentioned that giving to charities was not appealing due to a perception of money wastage of their donations. Respondents mentioned that they “gave more” when it was direct because they could see exactly where their assistance was going, rather than wondering about “where it was going,” or being concerned about legitimacy.

Showed how easy it was to help. Allowed people to connect directly and cut out any concerns that are often voiced about official charities using a lot of donated money on salaries etc rather than it getting directly to victims. Allowed aid to be close to immediate. [sic]

People also mentioned wanting to help in ways that were flexible, mentioning that volunteering for someone like Volunteering Tasmania simply did not suit their other commitments, their lifestyle or their limitations, and that they needed flexibility in the ways they were going to help.

People commented that they thought the goodwill was contagious; that “helping breeds helping.” People emphasised that everyone needs to help each other in a disaster, and they believed that disasters like this one brought people together. They also believed there is a special brand of community spirit and support in Tasmania, with people so willing to help others.

Completely amazing to see the level of support, goods and time people donated. I think the sharing of this inspired even more donations/support/action etc - in a snowball effect. I feel the page raised awareness of what was happening and gave people a feeling that they could actually do something to help. [sic]

The support of so many people, the openness of Tasmanians to help others. I have lived in most parts of Australia and Tasmania ALWAYS seems to come to the fore to help others, without question, without hesitation and without an expectation of even a thank you. [sic]

Positive outcomes

This theme contains key themes and subordinate themes that contribute to the *Page Mediators (Page Qualities)* and the *Page Functions/Processes* components of Figure 8.1.

There were many comments made by respondents about how effective, helpful and successful the Facebook page was. Many of these comments did not provide evidence or detail, making it difficult to draw firm conclusions from, although this sentiment was certainly repeated over and over again. A number of comments did contain concrete examples of the page ‘working’:

Everything...we would of had nothing if it wasn't for twch and foodbank. I sent a message, received a reply within a few hours and had most supplies by that night. All people delivering supplies went out of their way to help. [sic]

This page was brilliant and the founder should be commended and sent many praises. My [specific relative] lost her entire house all her belongings just after losing her husband a few years prior. The house was all her memories and all her possessions. This page was able to get someone to fix my [specific relative]'s old but sentimental car fixed which was damaged in the fires by someone on the page. This person did the work for free and had it running better than it was before the fires. My [specific relative] received donations from everywhere and has now been set up in a government unit at [location] with everything she needs. This page and the people have been amazing. [sic]

My home was not lost, only damaged. My [specific relative's] home was lost and they are now living with me in [location] most of the information I have entered above is relevant to their experience not mine. You have been awesome for them. My [specific relative] received some [items] and they got some excellent relevant information off this site. thanks a million. Xx [sic]

Another common response from respondents was they felt that without the page, less would have been achieved. For example, people believed that without the TFWCH page, they would not have been able “to do as much,” they would not have been able to get their donation through to those in need, and helping would have been considerably harder or less effective.

we had an empty 6 tonne truck going into the peninsular late on a friday night if it wasnt for TFWCH ([collection point] were closed) we would not of been able to get hay and transport it to [location] to a farmer in need! [sic]

People argued that those in the bushfire-affected areas would have been worse off without the TFWCH page, and that the recovery would have been slower, worse and less effective. One respondent stated they believed people would have died without the page; another said that without TFWCH they would have had absolutely nothing; and another said that it was due to this emergent group that they were able to get their family evacuated. People overseas and interstate felt they would not have been able to assist either at all, or to the same extent, in the absence of the page.²²⁸

I helped our little local community of [location] started a refugee centre because we were blocked in between two road closures and unable to return home if we left...none of this would of happened if wasnt for tfwch. Thank you so much. Ps ..we had children, elderly, diabetics and disabled people who would agree with me.... [sic]

People felt that the page carefully managed donations, and that it directed people so that only the most relevant and appropriate goods were requested.

²²⁸ It is important to be critical about the level of emotion attached to many of these responses. People were emotionally engaged to TFWCH, which could also be seen in the analysis of Chapter 6. Disasters are emotionally intense events, and it is not unlikely that in response to these questionnaires, respondents were providing answers impacted by being in an emotionally heightened state.

Respondents believed that the filling of targeted, individual requests would not have been possible in the absence of a page like TFWCH. People said they appreciated the specific, individual, targeted requests that the page made, and that these sorts of requests are much better than “general donations of stuff.”

Fantastic work Mel, you made life easier for many people affected by the fires. Thanks to TFWCH we were not only able to know where we could go for help when needed, but, were also able to offer help where needed. We were able to find people through TFWCH in our immediate area that we were able to offer assistance to, whether it was simply offering transport to elderly residents from the [location] area to [location] to collect supplies and to interact with others affected by the fires. We also transported volunteers and supplies from [location] beach to [location], which we'd have known nothing about if not for TFWCH. *[sic]*

People commented that they already had the “in-built desire to help,” but that due to the page, they had a medium and a means to help, when in previous disasters or without the page, this would not have been the case.

Many people pointed out that the page saved them considerable time, for example, they did not have to wait for hours on the telephone to source information. People reflected that TFWCH reduced the burden on emergency services.

I was kept up to date with relevant information including where and when was best for me to be of use. I knew what was needed and where. there were many hours of phone calls that were saved by simply trolling the page in order to access information. *[sic]*

Another positive reported was that people noticed just how large, comprehensive, and overwhelming the community response was on the whole. There was the perception that a large amount of community spirit had been created, and that it was wonderful seeing everyone “pitch in.” People argued that the page had brought the nation together, that everyone was working together, and that it brought strangers together who were all working towards a common goal.

I was given money by complete strangers when they realised i was in a shop buying goods for bushfire victims!!! *[sic]*

It was mentioned a number of times that people had made friends out of the process, had enjoyed the company of strangers and met some “great people” during

their hours of volunteering. This contributed to respondents noting that they “couldn’t help wanting to be a part of it all,” as they felt a terrific sense of community spirit.

People felt that the page was open to all sorts of different people and these people all had a place at the page – all “ordinary people were welcome.”

Anyone could be a good Samaritan. *[sic]*

People commented that the page should be turned into a story, a documentary, or a book, and that it had a number of lessons and messages to tell. Some went on to say it should be used as a model or training tool for future disasters.

I also have an academic interest and extensive experience with online communities since the mid nineties. I kept notes and some stats about the changing focus off the page through the phases of the Forcett fire. I intended to blog about it but other responsibilities took my time. I think there is a wealth for material in this page for a fabulous story, documentary or book. There are so many layers to the story. Some of them can only be understood by being immersed in the page in real time *[sic]*

In particular, people felt that TFWCH could be seen as a good demonstration of how one person could lead change and get a team up and running, and also a good example of how community groups and governments could collaborate and work together during these sorts of emergencies.

I think you provided an impetus that made the authorities take notice and act. *[sic]*

Many people stated that TFWCH was their exclusive source of information. This was either because they did not know of any other sources, they did not go looking for any others, or because they had seen others but had decided to use this page exclusively. It was a page that these respondents relied heavily on, with the only other sources that were mentioned often being the TFS website, and the ABC resources available.

I live within the community – [location] exactly. We were away camping at [location] when the fires started and had limited contact with our families remaining on the Peninsula due to power outages. Upon stumbling across your page it made us realise it was alot more serious than we imagined and

helped us decide to madly pack up and try and come home. My [specific relative] first came home via a friends boat on the Saturday, with myslef and children coming back via boat on the Sunday. Your page Provided various sorts of information from drop off points of donations, to (limited) inside information from the directly affected areas. the page was updated ALL the time and continues to be, which I feel is so important as most people who aren't living within the area can so easily just forget about the disaster once it's over. [sic]

Negative outcomes

This theme contains key themes and subordinate themes that contribute to the *Issues/Problems* component of Figure 8.1. The analysis revealed fewer comments about the negatives of the page compared to the positives.²²⁹ The overwhelmingly common answer to the question: “What could the page have done better?” was “Nothing.”²³⁰

The most significant and commonly reported negative outcome related to excessive or inappropriate donations. Some people felt that others were donating too much, and that the donations to the isolated Peninsula were not needed after the first few days. People commented that better communication with the formal responders about donations should have occurred to assist with reducing duplication and excess. One of the main concerns was that excessive donations in an area detract from the local economy as people are given items that they could have bought at the local shop.

Suggestions for improvement and reflection - not primarily criticism as such: I was on [location] and am speaking from direct experience - the flotilla and relief effort got a bit out of control after the first day or so. Our area was delivered lots of goods donated in good faith that were simply not needed eg clothing, canned and packaged food, water, etc etc. we witnessed people taking goods they simply did not need or after the first day or so could have bought from the local shop. We saw people delivering goods in small boats, not wearing life jackets and no one occasion drinking alcohol. The site did not cause this behaviour but may have inintentionally encouraged it. I was especially disturbed by a suggestion subsequently withdrawn that people should go down to the Peninsuala knocking on doors to cheer people up - naive at best, self indulgent at worst. People have continued to offer old clothing and household goods on the site - this is just not needed. Again, the site has not encouraged this

²²⁹ It is likely that people who did not believe the page was useful or positive did not continue to use the page, and therefore would have been unlikely to complete the questionnaire.

²³⁰ It is important to note here that the ratio of positive comments to negative or constructive comments was extremely high. It is hoped that the reader will not fall into the trap of false equivalence. Additionally, it is acknowledged that while it is a positive that people felt that little could be improved about the page, respondents had little else to compare TFWCH too thus these value statements cannot be verified objectively.

directly but the flip side of providing a forum at what is an emotional time for all is to also provide leadership and direction - including the ability to say "stop" or "no" [sic]

One respondent mentioned they had helped a family one-on-one, but due to the nature of the correspondence and a lack of gratitude they felt they might have been scammed.

I helped out by taking 2 car loads full of donations mostly from myself but also from my [specific relative] and another person I met through your page. These I gave to a guy who was housing friends who's house was burnt down. These items included a family tent, a pram, car seat, baby toys, kitchen goods, toiletries, towels, clothes and cash. Also I offered to borrow a ute to help the friends moved after finding a rental. In all the whole experience left a sour taste in my mouth. I never had any communication from the couple let alone a thank you, and even at one point wondered if the whole thing was a scam. Next time I would be thinking twice before donating directly to those in need. [sic]

One issue that is raised often with spontaneous volunteerism is the topic of risk and safety, and a few respondents expressed concern for how safety was being managed through the TFWCH page.

there were several setting out from the organized location that were not equipped with the necessary safety items for the trips and were setting out in weather conditions that were not suitable for their vessels or experience levels - which at the end of the day was a personal choice for them, however they were carrying goods donated via this page and by volunteers organised through the page [sic]

It's vitally important that the messages you send out and the actions you undertake are confirmed with Emergency Service Organisations. They have been trained for a specific reason, so as not to put more lives at risk during a disaster, and to also not create a second disaster by calling for an out of control volume of donated goods [sic]

One respondent argued at a much higher level, stating that they believed the page should not have existed at all.

You need to ramp down now a bit and DEFINITELY need to stop and in fact, should never have dabbled in the role of reporting fire locations, severity and providing community information. Confusion can kill in times of emergency as was proven in the Black Saturday fires in Victoria. There should only be one source of information and that is the Tasmania Fire Service. If people need to know something, the TFS will tell them in a timely fashion. [sic]

Positive attributes

This theme contains key themes and subordinate themes that contribute to the *Page Mediators (Page Qualities)* and the *Page Functions/Processes* components of Figure 8.1.

The key positive attribute of the page discussed by people was the page as a source of information – and to be more specific, the page as a source of detailed, relevant, helpful, useful, extensive, broad information that did not just focus on the “important” official knowledge, but focused on everything.

People viewed the page as a broadcaster and amplifier of information.²³¹ It was seen as a way to inform those on the outside about what was going on, to make them aware, and to tell them “the real story.” People found they could get information on this page that they simply could not get from elsewhere.

don't think it could have improved in any way. I found it was the most useful way to find out what was going on. for example, we had run out petrol to power the generator. I had attended briefing sessions at [specific evacuation site] and noone could tell me where or when I could buy petrol. Not even the police. Your site gave me that information. [sic]

Enough waffle THANK YOU - we either couldn't (or wouldn't) have done this without you! [sic]

People noted that the page covered a wide range of topics, including content about which properties had been impacted, updates about TFS warnings, information about fundraisers, information about the fire itself, information about drop off locations for donations, where to get help from the Government, the status of people's home towns, and information about road closures.

People appreciated that the page had been set up so that only the Administrator could post on the main page; they appreciated that this meant the Administrator had quality control over content. They believed that the page was

²³¹ While it is not critical, ‘broadcasting’ and ‘amplifying’ can be interpreted as two different roles. Broadcasting can be seen as sharing information that may have no other way of being shared with the community; while amplifying can be seen as the re-posting and sharing of pre-existing information, often formal information, that needs to reach a greater audience.

supplying accurate information, and that the page was attempting to get the facts, and to verify information. People stated that they felt the page was encouraging people to stick to the facts and not spread rumours, and that the page itself avoided gossip or heresy. Some respondents noted that the page was not always accurate, but that when mistakes were made, they were corrected promptly.

Information was sent out quickly and u helped to make sure the correct info was given out and corrected any errors promptly :) I was able to make my way to donation points with things that were needed and felt I was able to help in a small way with specific items. I was unable to donate money but I felt I was able to make some difference with the clean unused items I was able to donate. [sic]

People noted that information was coming from people on the ground who were close to the action, knowledgeable and up-to-date. This meant that the entire page was able to have an “on the ground focus,” and to work at the ground level rather than at a much more distant top-down level.

People said that the page was a beneficial connector or linker to other pages or other sources of information, noting TFWCH encouraged them to access other information sources. It did not project itself as the gatekeeper of all information.

the page didn't profess that it 'was the keeper of all knowledge'- it encouraged access to other informative pages (ie Tas Fires, Police etc). [sic]

TFWCH was directing questions and people to the most appropriate support or agency— a respondent summed this up stating that the page was involved in the “direct dot joining”. People made comment that they either probably or definitely would not have known about some of the other groups or people offering help if they had not been directed there by TFWCH.

People felt that the page was a conduit for helping keep people informed as it was a medium for exchanging, relaying, finding and asking for information.

I thought the sharing of information and asking for ideas was brilliant. I was able to keep my [specific relative] informed and ask for things for her that were desperately needed until she was able to get in a convoy and leave to come and stay at my house. I loved the way that people immediately jumped in to help where they could. [sic]

People noted that the page had been set up quickly during the disaster and received a large following in a short space of time, generating trust and action rapidly. It was noted that some posts had a shelf life of just minutes before someone using the page would solve the problem. Respondents also indicated that they thought that the page became the “go-to” place for problem-solving.

provided almost instant updates/needs and solutions and also a command post type of site when it was needed. *[sic]*

People frequently mentioned that they appreciated that not only did the Administrator answer questions, but also she answered them immediately, or if she did not, someone else on the page did. There was a perception that the Administrator asked people what they needed, and that she listened and answered questions no matter how big or small (or “dumb”). People felt that this interactivity set TFWCH apart from other unidirectional sites such as the TFS website.

They listened, and put everything out there, even if it was something minor someone could help with! Not everyone had the time or means to help in ways they wanted to! *[sic]*

I do not think anybody that came knocking was ignored or shown away. *[sic]*

People appreciated that TFWCH evolved over time, responding to feedback, and that it was a flexible system that changed as needed. Some respondents made the comment that the flexibility of the page was one of the reasons why it worked so well.

The community feel of the page was something that was mentioned frequently. People felt the page was personal and that they could connect to it easily: some respondents commented that it was easier to connect to than a larger organisation such as a charity.

Constant updates and information. personal info given, not just general. good to be able to comment/discuss. *[sic]*

Respondents commented that they liked that they were dealing with a real person, and not “faceless government red tape.” People felt the page had the vibe of a happy community, and they felt non-intimidated and that they could come to the page, be heard and contribute.

I looked at the pay it forward site and some others but generally seeing the TFWCH page was so busy and relatively comprehensive (and had the feel of a very happy, generous thriving community) I opted to put my energies there and to focus on it. *[sic]*

People mentioned regularly simply that “communication” was the best thing about the page (frustratingly, many of these respondents did not offer any further information). Others said it was a useful place to give and to receive messages, and that this included being able to pass on messages from the “inside” to the “outside,” as well as vice versa.

People noted and appreciated that through TFWCH the Administrator was encouraging people to step forward and to help, and providing plenty of guidance, encouragement and suggestions to people so that they could contemplate taking some action to assist. People also commented that the Administrator encouraged everyone to communicate with each other to connect. In a similar way people commented that the page encouraged and supported the natural leaders who emerged.

Identified specific needs quickly and got it to the people in need. I was put in charge of the [specific venue] donations. We couldn't get in touch with [charity] or [charity] during those first few days. We had people coming to us needing clothes to change into and toiletries so we put it out on Facebook and we ended up with a hall filled so high that it became dangerous to work in ! Hundreds of people helped during those first few days. Your Facebook page helped us gather donations. After three days we still had no contact with [charity] so we contacted [local business] and got three quarters of donations directly to needed areas. We finally got in touch with [charity] and they sent trucks to get our remaining donations. It took over 11 truck loads to empty the [specific venue]. An amazing generous community and a few days I will never forget. *[sic]*

People found the page to be inspiring, and the stories and activities to be inspirational. People commented that the page not only inspired them, but it motivated, galvanised, mobilised them, and directly influenced their decision to act.

The fact that it was always actual with what was happening and the encouragement from Mel and FB ppl when anybody offered anything. It was truly inspiring [sic]

Participants mentioned regularly that the audience using the page was enormous. They noted that lots of their friends were following the page so that information came up regularly in their newsfeed.

It put a lot of information in one place. It gave everyone lots of options about what they could do to help. Lots of friends shared info from the page so it regularly came up in my feed and if I wanted to find it (even though i hadn't liked it) it was easy to find. It was easy for me to pass on info about the fundraiser a friend of mine was doing. [sic]

People found they felt empowered by the page. They said that they felt in a position to help with some of the jobs that one would normally expect the “authorities to take care of.” Respondents felt that the page gave the message that “yes, you too could help,” not just the message of “the authorities are helping thank you very much.”

Quite simply it united us through on the ground, unfiltered, real information. The cause became personal and it was great to feel like part of the solution. [sic]

"1. posted needs ... made some suggestions about these but mostly left it for people to work out how they could/would respond" [sic]

Respondents regularly reflected on how the page managed to “shrink the world down,” and how it made their own geographical position irrelevant in regards to their ability to assist. People said that because they were not in Hobart they had struggled to find hands-on ways to help, but that TFWCH gave them other ways to help. Even if they were far away, people were able to offer words of support, sympathy, love, encouragement and praise, and they could keep up-to-date and source information through the page. Not being in or near the fire-zone was irrelevant.

The TFWCH page helped me to help others. If I needed something to be delivered somewhere, I would find someone through the TFWCH page, and the valuable and timely updates enabled me to relay important information to others - both helpers and bushfire victims. [sic]

Respondents commented that they found the page to be an excellent “gap-filler.” Some said it had filled a vacuum; others said it had filled a niche. People said that they appreciated that through the page they could find out exactly what was needed and what was not needed, and to be told where exactly the holes in the response were, so that they could fill the gaps.

I think you provided a brilliant, informative, well organised and extraordinarily helpful service. It gave the community an outlet and advice on who was in need of help and where it was needed. Everyone wants to help after a bushfire but frequently all the goodwill creates chaos and further headaches. The direction and constant information provided by TFWCH meant all the help went where it was needed. *[sic]*

up to date info on the situation on the ground , left TasFire to do the fire front hard yakka and got on with the human and animal side of support , liased between ppl coming from all over the state and directed them to where they could achieve maximum impact with what they had on board , gave everyone a focus , I mean we knew what was required due to TFWCH and we went and found it , it made us and our efforts relevant , we didnt seem to double up on things too much , which made the whole thing efficient and effective. *[sic]*

People said they also were grateful for the fact that the page was reminding people about the practical, logistical things that were needed on the ground – the sorts of things people “wouldn’t think of yourself.”

Your page and the detail were amazing - especially on the fri and sat the fires went through. My husband was at home protecting our place near [location] and my parents and siblings were fighting the fire near [location]. Your page provided so much extra info in a stressful time. Thank you. You have done a truly wonderful job and I'm sure Tasmanians will remember it forever. *[sic]*

Something respondents appreciated was that the page was offering options for how people could help: it was offering varied possibilities and different opportunities to traditional options, such as providing a financial donation. Other people said that they were shown ways to help in the disaster that they had not even thought possible before.

Many of us can't supply big things like generators, caravans, boats to pick up trapped people etc., and those are the kinds of things that we as the general population usually just expect government / army / big organisations to supply. Through the TFWCH page though, those people that could supply those things, became aware in the first place that they were needed (most people wouldn't have had the first idea about what was needed) and more importantly, they were given an outlet to do that. In many cases, if people couldn't supply those things themselves, they knew people who could, or put the word out to their own contacts to try and find that help. *[sic]*

In a similar vein other people said that they were given ways to help that are not usually given; they were given new avenues and whole new ways to provide assistance.

It gave people a way of giving that is often denied. *[sic]*

I offered to collect donations of craft items for the fire victims. I am also in the [charity] Club of [location] and will be helping feed the [charity] helpers with their evening meals. Our club is doing 1 night a week which is amazing as we are such a new club. Without the Tassie Fires fb page I wouldn't have had as many people to ask to help with craft items. I am partially disabled and this was the one way I could think of helping out. I have contacts of many crafty people. *[sic]*

I am not in the position to give financial aid, so I gave my time instead. I feel both are just as important *[sic]*

I just felt a bit useless as I am on a disability pension and couldn't do much financially to help. I have some reference books I am taking to [place] for the library and donated a few bits and pieces. *[sic]*

There were a few people who said that the page was a godsend, or a lifeline to them. It is clear that some people relied on the page heavily. It was also commented that the page was a great way for people to request and then receive donations and emergency supplies, and that in this way it highlighted the areas of need.

The page was seen as a central forum for connecting directly, as a place for people to meet and share needs, “cutting out the middleman” along the way.

This page inspired and encouraged others to help in a direct fashion where results could be seen immediately. Kindness is the new black :) *[sic]*

People made note that it was the fact that the page facilitated the instant connection between people who needed help and those who were delivering it that ensured success.

It cut through all the bullshit and allowed the free flow of information. *[sic]*

It was therefore also a central forum for connecting people, as it was a place where people could come with their problems or their solutions and then link up.

People appreciated that everyone was coming together to the one place and working together through a single source. In this way TFWCH enabled people to have direct contact with people outside of their usual networks.

As far as problem-solving was concerned, people pointed out that when factoring in pre-existing networks outside of TFWCH, the reach of the page became enormous. This meant that if something could not be solved on the page, this information could be taken to people's own pre-existing offline networks and online networks to attempt to find a solution amongst their own contacts. Respondents noted that if they had seen things on the page that may be relevant to people they knew, they would then specifically send that piece of information forward to that person who would benefit.

Tassie Fires made it possible for me to organise for a care package that included food, medical supplies and an all important bottle of [item] to get to my [specific relative] and [specific relative] at [location] while the roads were still closed. I was able to post the need from here in [location] then [person] from [location] took on the job of collecting the goods and [person] from [location] transported the good on his boat and delivered them. [Specific relative] and [person] were so grateful. *[sic]*

My [specific relative] and I are moving interstate and we wanted to donate our furniture, clothing and kitchen goods to the fire victims. Through this site, we were able to organise somebody with a ute to come and collect our goods and transport them to those affected. *[sic]*

People were grateful that the page provided feedback and progress reports, telling people when something had been achieved and complete or whether it still needed more work. People appreciated these progress reports.

Some respondents made mention of the fact that they felt confident that they did not need to look at any other sources because they believed that if anyone had any information that TFWCH did not currently have that it would soon post that exact information soon anyway. Another user said that they thought the emergency agencies would have appreciated the one-stop-shop nature of the page as it enabled

them to communicate updates easily too. Another described the page as a “single source of truth” at the height of the crisis.

Sure there were a number of other facebook pages that seemed to support the TFWCH page, however, the focus from each of these pages were more specific whereas TFWCH had a holistic view of things, eg helping animals and providing care for animals affected by the fires; helping kids; arranging charity and fundraising events; regular and continuous fire updates. The great thing about TFWCH was that it included links to all these other facebook and web pages which kept the community well informed. Well done! *[sic]*

People said they found the page to be trustworthy. It had an honesty and integrity that people trusted, and they said it was the page they found the “most honest.”

People were glad that TFWCH did not “beat around the bush” and it was straight to the point. There was a distinct lack of bureaucracy. People stated that this lack of complex processes, hoops administrative levels and committees ensured the page was a success – it was stated that the “lack of connection to government” enabled more to get done. The page was free of politics, political discussion and bureaucratic waffle.

It was an amazing page done by a kind hearted helpful person who did it all for nothing just to help, there couldn't have been a better more informative page out there and even if there were I still would have followed this one due to the fact that it was all done selflessly, for no self gain, just purely to help and inform all those in need with anything big or small!!! *[sic]*

Yes, very good. Sharing info, speed of response, doign a lot of what govt should do but are so hopeless and slow at. (And doing it without fuss or expensive fly in photo ops like our politicians wasted \$\$\$ and time on). *[sic]*

The page was totally free of political/bureaucratic waffle and enable so many otherwise ordinary people to contribute so rapidly. Excellent job Mel and others *[sic]*

People said that they noticed that the page had a positive tone and that people had overwhelming good attitudes during the whole process. A respondent made a comment that Facebook can get completely overrun by negatives like rumours or harmful comments, but that this page stood out because it did not suffer from those issues.

People said they appreciated being thanked for what they had done, either by the Administrator in “real life” or on the page, or by some other group that they had worked with or for. People said it was great to see the public acknowledged on TFWCH for their assistance. It was noted that the Administrator made an effort to appreciate people for all they had done, when those efforts would have gone past unrecognised otherwise.

People liked getting the stories of the community; someone said that this was the “niche of the page”. People were glad that the page told stories and enabled people to tell their own stories – the inspiring stories, and the beautiful stories – but the page also told the “bad” stories.

awesome to feel the support and for you to have created a platform where we could all share the experiences. thank you [sic]

The direct " dot joining" , the modelling of positive, supportive, can- do attitude, the respectful handling of people from all walks of life, the defusing of the odd bit of angst, the motivational aspect. The information management to help keep track of the key information evolved rapidly and was responsive to need and feedback. The trust that was established with official bodies and the direct communication line added to the credibility of the page and the usefulness and was a great example of the synergies and optimised outcomes that can be achieved when the official channels work collaboratively with grass roots groups. I could go on..... [sic]

Negative page attributes

This theme contains key themes and subordinate themes that contribute to the *Issues/Problems* component of Figure 8.1. While the frequency of comments was not analysed, it is worth pointing out here that the number of ‘positive’ comments significantly outweighed the number of ‘negative’ comments.²³² The feedback discussed below is certainly useful but cannot be perceived to be the dominant perspective of these respondents.

²³² Again it is worth reiterating that members of the public who did not find TFWCH useful or positive would have been unlikely to continue to use the page. They are also unlikely to have completed this questionnaire.

Some people found that some of the content on the page was frustrating or unnecessary. A respondent said it was vexing when people made a suggestion on the page without actually first exploring the ideas themselves first, or if people kept asking the same questions. Another user said that offers of annoying, unnecessary, and unneeded donations clogged up the newsfeed.

my only complaint about the page was that people started using it for stupid things towards the end. ``I have a heavy old TV I want to donate, I live two streets from the [location], but I don't have a car, can someone pick it up?``. Or the person who lived in [location] St (just along the road from an op shop) but was complaining that they had no way to get donations to the [location] (why not just take them down the road?) I know these people meant well but they were really just clogging up the newsfeed and it drove me a bit nuts. Not the fault of the page though, just human nature I suppose. [sic]

One respondent commented that all the thanking and appreciation and “soft” content on the page was annoying and unnecessary. They just wanted facts and information without all the frills.

There was a little too much posting of thank you letters and the such for my liking. I was more interested in straight to the point fact without the bits around the edges. The page was more useful when the urgency was greatest and the statuses and posts were short and to the point. But I'm not one for ego massaging, either. I thought all the soppy stuff could have stayed offline. But I know, some ppl like that stuff - makes them feel all fuzzy inside [sic]

Another interesting comment came from a user who could be identified as a male who made a comment about who the primary users of the page were, and why that made him feel excluded and outnumbered.

While clearly naturally occurring, anglo-australian women are overly (massively) represented in comments. Personally it felt strange to say anything, even if it was constructive. [sic]

There were some issues around verification and accuracy with what the Administrator was doing that were brought up. People said that initially there were some inaccuracies with the information being supplied. They also said it would be good to try to make sure in future that information is correct before it is posted. People commented that incorrect information was appearing on the site from other

users, and they wanted the Administrator to be sure to monitor what users posted to the page.

Others pointed out that they knew there were obvious limitations but that in an ideal world, all posts and comments would be verified before being let on the site. Some users of the page stated that they believed the page should or could have played a greater role in rumour management.

A small number of respondents pointed out that there were some negative or offensive posts in bad taste on the page. Another user said that the page needed to make sure it did not allow “blatant advertising” to occur.

People requested less regular and shorter posts. One respondent said that there was simply too much information coming in to their newsfeed and that it was hard to keep up with the posts. Another participant made the suggestion that the page would be better if updates were not so regular – they suggested that just three a day would suffice. Another user said the page should have provided coverage 24/7.

A few respondents became irritated about the fact that the Administrator did not answer them or “ignored” them.

Definitely take time to answer smaller questions such as 'is there any information on...' Perhaps even posting it on the main page SMALLER QUESTIONS ARE JUST AS IMPORTANT AND MAKE PEOPLE CRY WHEN YOU DISREGARD THEM AND SAY TO LOOK ELSE WHERE WHEN THEY ALREADY HAD! *[sic]*

One other respondent voiced annoyance that someone associated with a splinter group attached to the page did not respond.

The page was answered well by you, Mel but then you referred me to [person] (I think it was). I emailed her in regards to [item] and she said she would get back to me. She then said she had a meeting set up with someone from maybe [organisation] & would let me know what was needed but never heard back *[sic]*

It was mentioned that records should have possibly been kept: for example, record-keeping about the location of loaned generators. Another user said that the

page should have differentiated between the different parts of the disaster; they thought it should have been looked at and treated as two separate parts: the long-term damage caused by the fire, and the short-term cutting off of the Peninsula.

Psychological state creation

This theme contains key themes and subordinate themes that contribute to the *Psychological Outcomes* component of Figure 8.1. People expressed feeling pride in seeing all the activity on the page and pride in what they personally had achieved. Respondents said that the level of support was incredible; commenting that it was truly heart-warming and humbling seeing so many people step up to help. People said they were feeling touched when they saw the whole of Tasmania pull together during this time.

Also liked the fact that such a variety of people contributed and was delighted to see many of my friends on board doing their best for the cause. *[sic]*

Respondents said it felt good to be a part of an initiative that was so useful, and that they did feel like they were making a difference. Some respondents felt that the page gave them a restored faith in humanity.

The page was the right page at the right time. We were devastated hearing about the fires, and you provided a means for all of us to really help. The first week was absolutely awesome. I cried lots with the fantastic things people were able to do. Not something I'm prone to do much of - I'm male!! Your page kept us all in touch with real time needs and we really felt what we were doing was actually making a difference. *[sic]*

Other respondents said they felt guilty that they could not or did not do more. Others said they felt useless that they did not have money they could contribute, or were unable to physically volunteer.

People said TFWCH was a source of emotional support because they had an outlet: they had somewhere they could voice their experiences, concerns, opinions, thanks, love, sympathy and praise. Others said that they believed the affected

communities had gained much comfort from being involved in such a collaborative effort. Respondents felt good to be part of such a supportive community. People believed that the page gave physical, informational and emotional support to those who had been affected.

just by providing a mechanism for sharing the page provided significant emotional support for affected people by voicing experiences, concerns and thanks. *[sic]*

The kindness I read of in the days we were isolated was the most heartwarming thing I have felt in many years. *[sic]*

And to feel that I wasn't alone in all the chaos that I was experiencing. *[sic]*

Your Page saved so many people's sanity & gave peace of mind to so many, *[sic]*

I love the personal feel it all had, we were away from our community but could still be a part of it all through the page. It helped soothe our worries about what was happening since we couldn't get back in. Love love love it!! Thank you! *[sic]*

Others made note of the fact that they felt a strong need to feel of use as they were from the affected area, and they were stuck on “the outside” while people they cared about were stuck on “the inside” experiencing the emergency. In a similar vein to this people said the page helped to reduce their sensation of feeling so helpless.

Linking up and feeling useful was so important to me because I live in the area and was cut off from my friends who were experiencing it all *[sic]*

The assistance from the boats into [location] Saturday for evacuations were awesome when my family were separated by the road closure as were many others especially the young children whose parents were stuck in Hobart. *[sic]*

People saw the page as something of a refuge. Others were more emphatic and said the page was absolutely vital to their psychological wellbeing while they were isolated.

When we were isolated on the Peninsula, this page was the lifesaver of my emotional wellbeing. Just reading of the goodness of strangers and how every one was helping took my mind off the fear I felt of being so isolated. *[sic]*

Others pointed out that the page had a real benefit psychologically, making people feel calmer, and that it was a comfort, as the information and the page in general soothed their worries about their community, friends and family who were stuck on the inside while they were on the outside.

I'm an ex Tasmanian now living in [location] but still have lots of relatives/friends on the Tas Pen. I enabled me to worry less when I hadn't been able to contact them. *[sic]*

People who were helping said there was solidarity in the fact that other people seemed to feel the need to help too.

Participants noted that they felt comforted that the affected people were being looked after, that there was “an army” out there working for them. Others said the page gave them hope, while some respondents noted that the page came along at an important time when the reality of everything was just starting to sink in.

Respondents made comments about volunteering being incredibly rewarding. Some wondered if they helped just because it felt good, or simply because they felt guilty. People said helping had a good impact on them, and that being able to actually do something was cathartic. Others pointed out that being able to help is important for the healing process.

Others said the page meant that they “felt heard,” especially when the mainstream media tended to only focus on the Dunalley region. People thought that the bushfire-affected people were “heard” in a way that had been unprecedented, and that without the page that would not have happened.

A consequence of the activity on the page meant that people were recognising that their contribution could make a difference, no matter how small, and that while it did not take much effort to contribute, the help was going to be gladly appreciated. Some respondents also commented that TFWCH made them

realise that such a response was not an individualistic one, that it required the whole of the community to work together.

Administrator attributes

This theme contains key themes and subordinate themes that contribute to the *Page Mediators (Administrator Qualities)* component of Figure 8.1. Users of the page said that the Administrator had agency and power, and that she had the right connections with the right organisations. They believed she had good connections with official response groups and was in direct communication with them, which all added to the sense of the page having credibility.

People said that the communication by the Administrator was optimistic, and that she tried to ensure that the page as a whole was a generally positive page. Respondents found that the page was supportive and had a “can-do attitude” towards everything it was trying to achieve. People said that the Administrator was motivational.

The time and effort put into the TFWCH page was an integral part of the formulation and success of the Temporary Emergency Veterinary Centre that we set up at Dunalley. The ability to get the word out that we were in the area and we were treating all fire effected animals for free was invaluable. The success of our veterinary service to the people and their animals lay mostly on the fact that so many people were watching this site. Mel's tireless efforts to maintain such vigilance to all my requests to post updates on our service was astonishing and so very much appreciated. I am confident that Mels personal dedication and commitment to the TFWCH page kept the public up to date on our service and the days we were in attendance, which in turn helped us help many animals injured by the fires. The final, and possibly most appreciated effort was Mels personal messages of encouragement and appreciation (and often comical) to myself and the vets and nurses for what we were doing to help the animals. These words renewed our vigour to not let any animals suffer! A sincere thanks from all the staff at [specific vet clinic] [sic]

It was commented that the Administrator cared – that she was considerate, empathetic and compassionate. The Administrator was perceived to be pleasant, approachable, friendly, kind and sensitive.

People said that the Administrator played a role in translating and deciphering information for them.

So quick with updates. Deciphering important information. Connecting people who otherwise wouldn't have been connected. Praising those doing good - encouraging others. *[sic]*

Participants said that the Administrator remained calm and patient but firm with the users of the page. She was level-headed and not alarmist. She was organised, systematic and specific, focusing only on relevant information. It was noted that the Administrator delegated well to key helpers.

People said the Administrator was intelligent, knowledgeable and capable. They said that her skills in dealing with traumatised and stressed people set her page apart from the other pages. Someone made the comment that it takes a high-level emotional intelligence as well as organisational, communication and technical expertise to “man” a response like this, and they believed that the Administrator was suitably skilled. People made special note of the fact that the Administrator “had her heart in the right place,” that is, she did not have an agenda, and the whole initiative was not about personal gain. She was humble and genuine, and not publicity-seeking.

It was articulated that the Administrator showed great leadership. Another respondent made the point of saying that the page was a good example of how one person can provide leadership and therefore a way for people to come together.

It was established very early on as a reliable, trustworthy, ethical and consistent source of information, run by someone who was intelligent, considerate, thoughtful and not alarmist or publicity-seeking. This person screened information, was selective about what to pass on in the interests of the general public, careful about information which may not have been so useful or relevant, and at all times showed exceptionally good judgement in making these decisions. We didn't get much support for our fundraiser [name of fundraiser] directly from the TFWCH page, as the event just kind of got lost in the constant stream of news feed updates ... but that's not important in the grand scheme of things (and we still did great - \$[sum of money] for the Red Cross Appeal). The page did what it needed to do for people who needed something from it, and for that our broader community should be infinitely grateful. *[sic]*

People felt that the Administrator had good judgement and decision-making skills, and that her communication was rational and based on reason. It was also commented that the Administrator was diplomatic, and that this set her apart from the Administrators of other pages.

No others were able to communicate in such a positive, sensitive and diplomatic tone. Your experience in engaging with people in stressful and traumatic situations set your page apart. Other pages that I saw were also really well meant, but far less accessible to mainstream participants. *[sic]*

Overall people said that the Administrator herself was a key ingredient to the success of the initiative. People said that given the Administrator had had no previous experience in this area she had done a “great job.”

It was noted that the Administrator was “under the pump,” that is to say, under a huge amount of pressure, handling a massive community response, coordinating multiple tasks, and receiving extensive information to handle.

Participants made note of the fact that the Administrator made a sustained effort. One respondent said they were in awe that one person had set it up and had been able to continue for such a long time. They said that she manned the page constantly and constantly monitored the page, while juggling it all with her own commitments. People said she was selfless and put in the time, and showed generosity for continuously being there. Participants believed she had made a tireless, dedicated effort and this was vital to the success of the page.

Responders noted that the Administrator was professional and ran the page in a proficient manner, and that the page continued to meet a high standard.

Swift coordination of on-ground practical assistance, allowing people to help, easily, within each person's capability. Exhibiting common sense and great grass roots leadership, calm (outwardly! I'm sure there were lots of Oh SHIT! moments...) while under extreme pressure, professional responsiveness, great delegation, encouragement, great facilitation and problem solving skills. Building and supporting community spirit. *[sic]*

Interestingly there were almost no negative comments about the Administrator.²³³ One comment was made about a “naïve” post that had been put up by the Administrator early on in the page’s life.

The page as comparative/superlative

This theme contains key themes and subordinate themes that contribute to the *Page Mediators (Page Qualities)* component of Figure 8.1. This theme represents the high volume of comments that referred to the page as, for example, “the best,” “the fastest,” and “better,” “faster,” and “more honest” than other sources of information or assistance. Therefore any comments that referred to the page in a superlative way, or in a comparative way to other pages, are included in this theme.

People said they believed that members of the community were using the page more than they were relying on traditional or official news sources. People commented that the page was “the most popular,” and that many people were using the page – they believed it to be the most patronised of all social media sources.

Everything on the page was great it was the easiest way to keep updated with the fires and what people needed help with. *[sic]*

Comments were made that the page was the most accessible of all sources of information available. People stated that they believed that they did not think a formal charity could have done as good a job as TFWCH – because the page was providing them with a “real person to talk to,” and that it was “interactive.”

It was noted that the page was more co-ordinated and organised than other pages. It was noted that people found this page was communicating and operating at a faster pace than other sources: people said that information was available here

²³³ Again, those who did not approve of the Administrator and TFWCH or find it useful are unlikely to have completed a questionnaire, or continued to follow the page.

faster than elsewhere. They found this page to be the most up-to-date, and “better” than other sources. The comment was made regularly that the page was “better” than something else or “the best,” without much more detail being offered.

The Tassie Fires page was the ONLY source I relied on for up-to-date information about what was TRULY needed at any particular time. Congratulations on all your work and effort in providing THE best page concerning everything affected by these tragic fires xxx [sic]

People felt that the mass media was getting their information from this page.

The need for extensive, timely and detailed information was obvious, as people made note of the frustration of only being able to get the “same repetitive information” from the TFS and other authorities.

Not sure that you could now you're better known, more people know about you as the fire happens. Maybe a link from the TFS page would be a help ;) One thing I find the TFS page is really bad at is actually telling you where the fire is EXACTLY. I was very involved with the [location] community, and the list of 2 roads that were closed on their page didn't really tell me when my friend's places were under direct threat. The map doesn't indicate which way the fire is traveling either. Maybe you could encourage more direct updates through your page - locals reporting it looks like it's jumped no.32, lot of trucks at Smith's place at present, etc. [sic]

People also came to the page because they had heard from others that it was not only the most up-to-date, but also “the most honest.” People mentioned that they found the page had an integrity and honesty that they trusted.

the ability to generate trust within a community and action at such a fast speed [sic]

Gratitude and praise

This theme contains key themes and subordinate themes that contribute to the *Psychological Outcomes* component of Figure 8.1. Participants provided extensive direct positive feedback and praise while they were answering the questionnaires. People made many emotion-laden, commending comments and used positive language when talking about TFWCH.

Respondents said congratulations to the Administrator and to the TFWCH team, and commented that the Administrator deserved accolades, medals and recognition. People said that the page itself was a great initiative, a great idea, and a great incentive.²³⁴

Another comment that recurred often was that people felt that the page did not need any changes or improvements. People were also grateful that the page seemed to be ongoing even months after the disaster had first happened. People commented that they felt this sustainability was important, as often after a disaster interest wanes and life on the outside “goes back to normal” as the mainstream media “forgets.”

Other pages: positives and negatives

The themes in this section are not represented in Figure 8.1 above. However they are worth examining to give insight into how social media was being used effectively or poorly by other members of the community.²³⁵

In particular people appreciated a Facebook page run by a local fire brigade. One person specifically stated why this particular page was good, saying that it was personal and local, rather than bureaucratic and “official.”

Two other fb pages I tracked were the "[Facebook page]" and the "[Facebook page]". The first had pretty much the same info but a lot less than you but will keep liked for the other info it provides. The second didn't have a lot of info but was important coz it was about real people from our local community out there protecting lives and property. Not just some nameless emergency service. They put up a few pictures, advertised the way they could be supported etc. [sic]

Respondents noted that it was good that some other pages worked with TFWCH, that is, that they referred to posts from TFWCH to avoid duplication.

²³⁴ Again, it is worth reflecting on the fact that the respondents were likely to be in an emotionally-heightened state post-fires.

²³⁵ A list of all the pages people referred to is in Table 27 in the Appendix.

People also said that the Facebook pages of their friends were important too, as sources of information.

A number of negative comments were recorded in regards to other Facebook pages. People felt that more of the other pages should have teamed up with the TFWCH page to avoid duplication, as they found that having more than one page was confusing.

There were a number of comments made by the participants in regards to how other Administrators “let their pages down.” There were comments that a number of pages had an Administrator who was focused on his or herself, or who had their own agenda, and who was “doing it for their own gain.”

I felt there was a bit of focus from some other FB pages (that sounded similar to tas fires) 'look what I'm doing' on the page; and then when contacted to donate 'well I'm not sure how you can help, I need other addresses for drop off locations first" (in regard to children's bikes- sounded like we could personalize and match to children from this other FB site-/ not so pleasant inbox reply so, instead we gave to vinnies) and I unliked this as it was a bit about the site, not so much about helping! Tas site fires was about getting the facts, being organized and embracing ALL support. [sic]

I followed a couple at the beginning, but they quickly became people promoting how good they were by helping rather than just getting on with things. I quickly followed only the TFCWH page. [sic]

tbh - didn't really check many. There were some that felt a bit..hmmm..."entitled" Not the same sense of a broader community. Won't name names - don't think that would be fair as I am quite sure that they were well intentioned but perhaps not as skillfully communicated. [sic]

hmm one page I initially assisted on as admin the page owner appeared to have own agenda, making comments about own health, how tired they were etc...! I suggested posting something on your page as more public could view and was scorned...i left that page! Although i browsed other pages there was no comparison with the information that you had on yours. You are a True Tassie Treasure :) [sic]

In line with this, participants commented that if an Administrator was not dedicated, this was problematic, as having a constantly present Administrator was seen as an absolutely vital key to the success of a page. People said they wanted and needed immediate feedback and if an Administrator was not constantly there then this was not forthcoming. People found that information coming from other sources was not correct, and if other sources were not giving current and regular updates then

they were of no use. Respondents made note of other Administrators with “less developed” communication skills.

I cannot stress enough how good your site was, the efficiency of the site enabled people to help where and when they could. There were other sites in other areas, as well as Tas, which set up for the same activities BUT the people running them did not update, did not answer questions in a timely manner, called for say 'clothing' then went off because there was too much and no one to sort it. This frustrated people and I am sure a lot of assistance that was available went away and was not utilised because of it. Mel, your time was so valuable not only in beginning the page but in the clear, concise and timely way it was run. Communication was the key and you did, and continue to do it properly and well. I would want you on my side if I had a crisis. I am posting this to your page. Lol. [sic]

It was noted that some other pages became negative or argumentative or messy.

TFS, ABC were also good. Another fb page similar to yours was supporting relief efforts but it degenerated when racist slurs were made about the asylum seekers who were somehow blamed for using the [location] accommodation that fire refugees who had lost their homes could have used. It was such a disappointment and in complete contrast to the building of community that had occurred to that point, sad. [sic]

People felt closure was important and they wanted progress reports and updates about how volunteering tasks were going, and it was noted that other pages did not do this.

There was another which was trying to ape yours and was useless, never replied or gave CLOSURE to a situation. CLOSURE is really important - ie. yep, the guy at so and so who need livestock food, a generator or whatever is right now; the people trying to transport whatever to wherever have had an offer and are taking it up. That way people can move on to the next person who needs a hand and are not wasting time and effort chasing a done deal. As I said before the people who set up the [location] one were hopeless, no feedback, no organisation, drama queens who bit off more than they could chew and whose heart was in the right place but then got a bit cranky at too many clothes and not enough volunteers (should not have happened), no definite place to take the clothing just their shed, then complained that it was too much and abused a couple of people on FB - not me but everyone on there would have seen the post. Not appropriate, ask for donations, have a place to take them (school hall or similar) and ask for volunteers, and delegate. Lol I would prefer that you did not use publicly what I have said about other sites, people have kind hearts and at the end of the day do what they can. I am trying here to give you honest feedback, in case, please not, there is a situation like this again, NOT to denigrate them. [sic]²³⁶

People said that other pages were not organised, were “scaremongering,” or that they were simply operating in a generally poor manner – Administrators were

²³⁶ It is acknowledged that this participant wished for his or her comments not to be made public. As this data was valuable and also unidentifiable, it was decided to use this quote in this thesis. Furthermore, the data is not being presented in order to ‘denigrate’ other helpers; it is being used in this thesis to explore how future emergent groups may operate more effectively in disasters. It is argued that this quote is used in the spirit it was intended.

not replying, not giving feedback, being overly dramatic, taking on too much then not delivering, complaining, or asking for donations then not having anywhere to put them.

i think all the pages were helpful - spread shared them all- i think the [specific Facebook page] was the worst- they seemed to have an internal argument going on- i dont think they realized this was a collective effort by all taSMANIANS that no-one was trying to get hero status-we just waNTED TO HELP [sic]

The official response: positives and negatives

Unfortunately positive comments about the official response were few and far between,²³⁷ and there was substantial criticism of the official response. This theme is represented in Figure 8.1 by *Gaps*.

Respondents said that the council was well prepared for the evacuees.

Went to assist those arriving via ferries late at night from affected areas. HCCS had most needs covered though which was great :) [sic]

People said that the TFS website was helpful, providing correct and accurate updates. A respondent appreciated the boats that were evacuating people from the affected area.

There were a number of specific comments relating to perceived issues with the official response and recovery. There was a discussion by one person about the fact that the destroyed primary school had been rebuilt too quickly. Another respondent noted that more burn-offs²³⁸ should have been allowed to happen in the first place. Another participant made a complaint that during the response, members of the State Emergency Services (SES) had taken all the supplies from their shop to

²³⁷ It is important to note that there was not a specific question asking for people's opinions about the official response; so any comments about how the authorities were handling the situation were embedded in the answers to other questions. Furthermore, a better understanding of how people perceived the official response would have been gained if a specific questions referring to it had been asked.

²³⁸ Controlled burn-offs are conducted regularly by the TFS as a measure to reduce fuel load for upcoming fire seasons.

take to a different area and therefore left them “with nothing.” People said that the central drop-off point for donations – St Vincent de Paul’s at the Showgrounds – was so chaotic and overwhelming that they could not stay to help.

So we head out to the showgrounds to Vinnies. I was surprised to see the amount of junk that was being left. I off loaded some of my good bedding and clothes but the greatest gift was the purchases we had made on the way. I sorted them into the boxes they had and realised the mammoth task of the women who had been there all day with no break just trying to sort stuff. Pity the people dropping off didn;t stay for a while and help sort. So the moral to my story is the accurate info on your face book site resulted in me being able to give immediate practical assistance. I know so many people mean well but when I got to the showgrounds it looked like a frenzy of people offloading their junk. Can't thank you enough for setting up the page as we could set off from home knowing exactly what was needed !! Awesome idea with the page because we all want to help but makes us feel better knowing our help was useful. WELL DONE! PS Thanks for the chance to waffle I am an expert at it!! [sic]

There was a lot of commentary around the official response by Government being not good enough, too slow or “too useless.”

Fantastic effort at filling a vacuum - official response to the dislocation issue on Tasman Peninsula was too slow. [sic]

Immediacy of response, providing support while Gov't & not-for-profits got their shit together. [sic]

People said that because Government and grazier groups like the TFGA were not as well informed as users of the TFWCH page, they were too slow in giving directions to people who wanted to help.

Up to the minute post about what was needed and where. With this site we were able to get feed and hay to desperate people just hours after they asked for help! As the government and grazier groups were not as well informed they were much to slow in directing us to the most needy farmers [sic]

Providing a central place for communicating and coordinating. Govt depts are not able, at this point due to policy and practice, to move quickly. It provided that initial need of support while more official depts organised themselves. It's a concept called space and time compression (something like that) [sic]

There was a repeated comment that no support was being given to people early on. People said it was hard to get quick answers from agencies. Respondents said that the Government should have had an effective social media strategy up and running, and they should definitely have this happening before “the next fire.”

People commented that there was not enough coordination by the Government of

what was happening, or coordination of how information was to be disseminated to the public. People felt that Government communication was “useless”. Commonly people felt that the response was too slow, or it simply felt like there was no response at all.

In regards to the recovery people said they saw people claiming benefits they were not entitled to.

Just making sure that people were not abusing the system. People who did not lose their homes constantly had their hand out and I found that quite disturbing when people like my parents and some of my friends lost everything. comes down to honesty and some people don't have it. We are forever grateful for all you have done. *[sic]*

There was some concern expressed about charities and their trustworthiness.

A lot of people do not like to give through charities such as the Red Cross due to the admin fees (I still gave to the Red Cross personally), so your page provided an avenue for people to cut out the middle man. With that in mind, I am sure some people donated who may have not otherwise done so. *[sic]*

Some people felt that the mainstream media was too sensationalised, looking for “a big story”. Some people said they felt ignored by mainstream media, because the mainstream media focused on the hardest-hit areas, at the expense of other areas.

I also appreciate that TFWCH didn't focus solely on [location]. [Location] was very badly affected yet doesn't get much of a mention in the media. The lack of attention has negatively affected the residents who lost everything! *[sic]*

People were frustrated that coverage by the ABC was not 24/7.²³⁹

While some people said they found the TFS page helpful, there were also many negative comments. People said it did not and continues to not provide enough information in specific detail about the fire location – that the information is “far too broad.” People said that it was not user-friendly, too clinical, and that both the TFS and other authorities were simply repeating the same information, or that the information was too generic and not detailed enough.

²³⁹ At midnight on the most devastating days of the fires the ABC switched to mainland coverage.

I also followed the TFS page, but the information there was very ...clinical. I understand they don't have time to give us the fine detail, so that's the niche that TFWCH filled perfectly whilst the fires themselves were happening. I'm betting the emergency services were grateful that they didn't have to spend time answering the phone to people who needed to know things. Those people knew they could go straight to TFWCH and get everything they needed to know. [sic]

The other pages were not as current as this one. Some of the admins of other pages focused on what they personally had done rather than gathering people to help get more things happening. To be honest, I find that the TFS page is so hard to use, barely provides any detail at all and I found myself referring constantly to this site as it had so much more information on it. Even with the Molesworth Fires, this is the page I came immediately to! Maybe the TFS page should take some pointers from your page! [sic]

The TFS page has been crucial to view where the fires have spread however the map is not updated frequently enough. Face Book has provided the fastest and most timely mechanism for communication. [sic]

Another concern for people was that they were being told to put their names down to volunteer with Volunteering Tasmania, but then they were never contacted: even though they then saw adverts on the television asking for volunteers. Other people said that that they had been told no volunteers were needed, but when they spoke to people “on the ground” it was quite clear volunteers were needed, which is why they started to contribute.

I put my name down for loads of volunteering, I had heard back from some, but they were not in need of my help due to an over whelming amount of volunteers. It a little upsetting doing so, and then seeing adds on tv and hearing that so many people want volunteers, but for some reason I was not contacted. I understand so many people did volunteer. Im not sure why or where the communication gap is. Thank you so much for creating your page. It was also helpful to my friend who had a farm in [location] and I asked you to post a request and I sat here balling my eyes out for hours. People were calling and texting and sending messages on facebook offering their help. It would be interesting to see how many people posted and asked for help and how many received it due to the requests on facebook. It's such a great tool to have for the community. You are an angel for setting it up and maintaining it. Lots of things were done because of you. Thank you once again! [sic]

Contributions

In Q1 and Q2, respondents had been asked to identify from a list the volunteer behaviours they had completed.²⁴⁰ They were then asked, as the first qualitative item, if they wished to add any further clarification or detail about ways they had helped. These will not be discussed in detail, largely due to the fact that

²⁴⁰ See Chapter 7, Volunteering Activities: Q1 and Volunteering Activities: Q2

most of the contributions mentioned overlap with volunteer behaviours already explored. The topics have been categorised in Table 31 in the Appendix.

Page usage

A few people mentioned the different ways they were using the page. These comments were collated under this theme. This theme is not represented in Figure 8.1, but provides an interesting snapshot of the different ways people were using the TFWCH page.

One participant said they were checking it just a few times a day to find a job to do. Others said they liked the page, then unliked it, and liked it again when they wanted to come back to it.

The only negative was the amount of info got too much for my news feed but I turned it off and would then jump on the page when I wanted. [sic]

Other respondents on the other hand said that they “pretty much stalked the page,” that they were on it constantly, while others said that they had indeed been following it continuously but that in the last little while they were not on TFWCH quite as much.

There were plenty of comments revolving around the fact that people were using the page for the purpose of acting in the role of unofficial information liaisons. People said they were using it to help other people find lost information – so they would scroll back up through the page and find a post or comment that someone else might have been looking for, or redirect them to some information they may not have seen yet.

Some respondents said that the way they were using the page was to get information from the bushfire affected area, then pass that information on to the world via TFWCH. Other respondents that they were using the page to source

information, then passing it on by telephone to either their loved ones and friends or to general people in the affected areas until they were no longer stranded, or to pass that information on to anyone who may not have had access to TFWCH for a variety of reasons. Some people were using the page to gather information in order to help other people find loved ones missing in the fires.

It certainly helped my [specific relative] who had lost contact with me due to the power outages and all ph contact. She was really worried and u put something on u'r page asking details about me. So in general finding people for loved ones that were worried . [sic]

Other people felt that the way they were using the page was in fact their biggest contribution, as they were sharing posts from the page. Many of these people said that they felt this made a difference and that as a consequence of spreading the word: they felt that they “drummed up more support offline.”

Social media

The following themes are represented in Figure 8.1 in the *Predictors/Conditions* component. People said social media was a “good way to do it,” as Facebook made communications easy: sharing data in an open source, public and highly visible platform. Another person made the specific comment that having the community response working online enabled her to help in ways she could without feeling any more emotionally stretched than she already was.

It was very helpful to know that other people were feeling a need to help, and that there were conversations that I could follow without having to invest any more of my own personal story, or my already stretched capacity to deal with any more face to face emotions [sic]

Fantastic initiative that harnessed the immense power of social media for social good. It gave 295asmanians a vehicle to move their desire to help into action so of help across the spectrum from the little things to big. [sic]

People said Facebook was being put to such good use like this and they had never seen it used in this way – that it was their first experience of how valuable and positive it can be, and how it can work “for good.”

Nothing you did the page so well. There isn't anywhere else in Australia where natural disasters have happened has somebody done what the admin's of this page have done. It showed me just how many people still care out there for others that had been affected. [sic]

A few people did indeed mention a few negatives around social media, which mainly centred on concerns about rumours. One user also tried to contact Facebook, with no luck.

Not so good: copycat sites springing up, dividing the number of “like”s No good at all: The bloody FACEBOOK's management itself! ☹ They didn't even dignify me with an acknowledgment to my countless emails ☹ [sic]

Other people pointed out that there were people who did know about the page, but they were not “Facebook people” and did not want to become Facebook people.

Looking to the future

A recurring comment was that although the TFWCH initiative could improve in various areas, these improvements were minor, and the page and Administrator did an incredible job at the time. These themes are represented in Figure 8.1, in the *Issues + Lessons* component.

Honestly mel and partners who helped... everyone I have spoken to on the peninsula cannot think of how you could have done it better. Even a friend from town who delivered supplies to [location] by yacht could not see due to the thickness of smoke; [person] messaged you and you got ppl with torches on the jetty to guide her. Instant response to a need. Well done. [sic]

People pointed out that there was no plan when the Administrator was setting the page up and the Administrator did as well as she could, given the situation. Other respondents said that hindsight is helpful and that improvements can now be made, but that the page did well to adapt and evolve as the disaster played out. People said

the page improved when TFWCH was getting information directly from the top of agencies. Another said that the page was better when the information was becoming more accurate and detailed. People appreciated that the information was becoming more pertinent as the page evolved. In a similar vein people said it was positive when the page was starting to get the information more organised, rather than it being “all over the place.” Another person said that the page was better when the sheer volume of posts reduced.

A lot seemed to be happening as my news feed was full of it, which was a little overwhelming *[sic]*

Other people said that even though they gave suggestions for how the page could be improved, these suggestions were “minor” given the overall positive aspects and success of TFWCH.

This is not the type of thing that you could grab a template from somewhere and insert into this situation. *[sic]*

People wanted posts to be removed once that “problem” had been solved, so that they had closure and knew that job was done. People wanted a central database of information that they could go straight to and find things easily: to be allowed to post directly to the page without being screened, and to have more, or clearer, links to other pages like charity sites or police notices. Respondents also thought perhaps the page could be better if it were divided into two pages that focused on different topics, and maybe a group page where everyone could have posted as Administrators would have been good.

People thought events should have been created for those times when large numbers of people were needed for a task. People liked the temporary TFWCH website that was put together quickly, but commented that it was not as user-friendly as they would have liked. Respondents wished that the page had some sort of search

function. Finding important information was quite challenging at times and participants noted they would have liked there to have been some sort of way of categorising posts or organising them and putting them together so they were easier to find.

People thought the page could have performed better if people were not forgetting to look at the 'recent posts by others' section.²⁴¹ It was suggested that the page could have been better if people followed up on their own suggestions more, and if other people reported back regularly on what they were doing so that regular progress reports could keep people up-to-date.

People thought Twitter could have been used more. People also said the page could have been better if it had had more pictures, and other people said a mobile app would have been good. Another suggestion was that the page could have been better if Facebook emailed fans of pages with notifications like personal Facebook pages do.

There was some discussion around how the page could be better if there were more than one Administrator, so that everything could have been done faster. People said that they hoped the Administrator had enough support.

I think the essential humanity and acceptance seen on the page ... not perfection but willingness to try was what made it so good. Streamlining in my view was not required but it was a big ask/commitment on your part while it may have helped to have a bigger team to share the load I suspect that team would have had to have had a common heart, common down to earth generous accepting hard-working approach for it to work. I wouldn't change too much but I hope you got the support and the sleep you needed. Again my thanks and my congratulations on a really really good job so well done!!
[sic]

People said that the page could have been better if all questions and answers and information were on the one page rather than redirecting to other phone numbers.

²⁴¹ In Facebook, when the Administrator posts on a page, it appears on the main wall and is pushed to the newsfeeds of fans. When other members post on a page, it appears off to the side of the main page, in the 'recent posts by others' section, and is not pushed to the fans of the page. Thus people need to actively engage with the 'recent posts by others' section in order not to miss content.

There was a page which I think was based in [location] and seemed to have been active helping people before the fires. I think they should have deferred ALL fire related help to this site to avoid repetition. They could have kept up their other good work. *[sic]*

[Facebook page] was the only other page I regularly followed. Being an animal rather than a people person, I wanted to keep in touch with how I could help with animals. Although I'm a registered wildlife carer, I found there to be a deadly silence amongst all the wildlife networks about how I could help, which I put down to there being a very small number of people working it out amongst themselves outside of FB. So even the main [Facebook] page was not so useful for me, though it appeared to be for the people directly affected (by loss of domestic pets, needs for livestock etc). A few other pages popped up during the emergency, but yours and this [Facebook page] one seemed to be the best coordinated and certainly the best patronised. Too many little pages dilutes the effect I referred to above (feeling able to help as part of an energetic bunch of total strangers). *[sic]*

People wanted there to be more contacts and links with the Government over the page. Similarly they thought that official recognition by the TFS and Tasmania Police would have been good to help them know they were not “getting in the way of the law.” People said that next time it would be good to make sure that the connections with agencies were in place right from the start. Others thought that the page should actually become a part of the emergency response task force.²⁴²

In regards to running the page “better next time” a few other suggestions were put forward. An individual made a comment that it is important to consider how the page would be run in the future because if it were *too* organised ahead of time half the “good stuff” would have been taken out of it. People said they felt it was necessary that this page continued to be the default page for future emergencies. They said it should be the template for future emergencies but only if the Administrator “was paid for it,” as they believed that this kind of an initiative deserved funding.

Another comment came from someone who said that although they understood that the Administrator needed to keep the overall tone of the page positive, some discussion around some of the more contentious issues, such as the role of government during the disaster, would have been appreciated. Another

²⁴² At a meeting with the Red Cross post disaster; it was suggested the same thing; that a Memorandum of Understanding with TFWCH be inserted into the State Government Emergency Plan.

respondent commented that although verifying information would be difficult for an Administrator, in “a perfect world” all information would be verified before being let on to the site.

Discussion

To prevent unnecessary repetition, this discussion section will simply summarise the results of this chapter, and an in-depth discussion of each individual research question will only appear in the following chapter, Chapter 9.²⁴³

Data that mirror and support the findings presented in the thematic analysis of Chapter 6²⁴⁴ can be observed in this chapter: namely, this analysis has provided contextual information describing the large-scale nature of the disaster and its negative impacts, the perceived deficits in the official response, and the search for information. People were traumatised and stressed, communication was difficult, people experienced separation and isolation, and there was significant loss and destruction. There were many physical, social and psychological needs.

This analysis has shown that people were searching for information, across a broad range of topics, and they wanted official information, as well as unofficial, local information. People wanted to help, but many felt that they “did not know how,” expressing concern for “getting in the way.” Thus people sought guidance in order to find suitable ways to help during the response and recovery. This analysis has also given information about what motivates spontaneous volunteers, and it can be seen that they wish to help directly, quickly, and flexibly.

²⁴³ See Chapter 9, Research Questions 1 through 4

²⁴⁴ See Chapter 6, The Emergency

A theme that has arisen throughout this thesis also arose in this analysis: people felt community spirit, and a collegial, collaborative attitude towards achieving goals.

While it cannot be explicitly confirmed that the page was effective or helpful, considerable commentary suggested that people did find the page useful. People felt it had a direct impact on their ability to help, it was “a success,” saved them time, reduced the burden on the emergency services, and that more was achieved with the page than would have been achieved had the group not existed. The analysis has shown that people felt that the page enabled them to help when otherwise they may not have been able to, and they were grateful for this.

People found the page helped them to be informed, and they had access to relevant, local, helpful, unique, accurate and timely information. The analysis has shown that people felt that through the emergent group, assistance was delivered effectively and rapidly. The page was seen as an efficient way to communicate and collaborate. People felt inspired, connected, supported, mobilised, empowered and up-to-date.

There were beneficial and constructive suggestions around how the response could have been improved, which can help inform future responses. It is believed that many of these problems can be solved with better communication and collaboration with official sources – such as when handling donations.

Overwhelmingly the feedback about the page was positive rather than negative, as was the feedback about how the Administrator was managing and running the page.

This analysis has shown that respondents believed the Administrator was running the page effectively; that she was supportive, motivational, positive, and empathetic, compassionate, organised, systematic, intelligent, had good leadership,

agency and communication skills, and was constantly present and available. Figure 8.1, which appeared at the beginning of this chapter, summarised the findings of this thematic analysis, by dividing them up into triggers and gaps, predictors, page functions and processes, page mediators, real-world and psychological outcomes, and issues and lessons.

Chapter 8 has concluded the analysis chapters of this thesis. The four Research Questions are now explored in Chapter 9.

8. Chapter 9 – Analysis and Discussion of the Research Questions

Introduction

This thesis aims to document and examine a case study of an online emergent group that formed in response to a crisis event, the 2013 Tasmanian bushfires, to explore if the volunteer group had impact on community resilience. Each of the four research questions that were introduced in Chapter 4 will now be explored.

Figure 8.1 is reproduced below as Figure 9.1, as it helps to summarise a number of the main themes that have emerged during this thesis. It provides a useful framework when exploring the research questions.

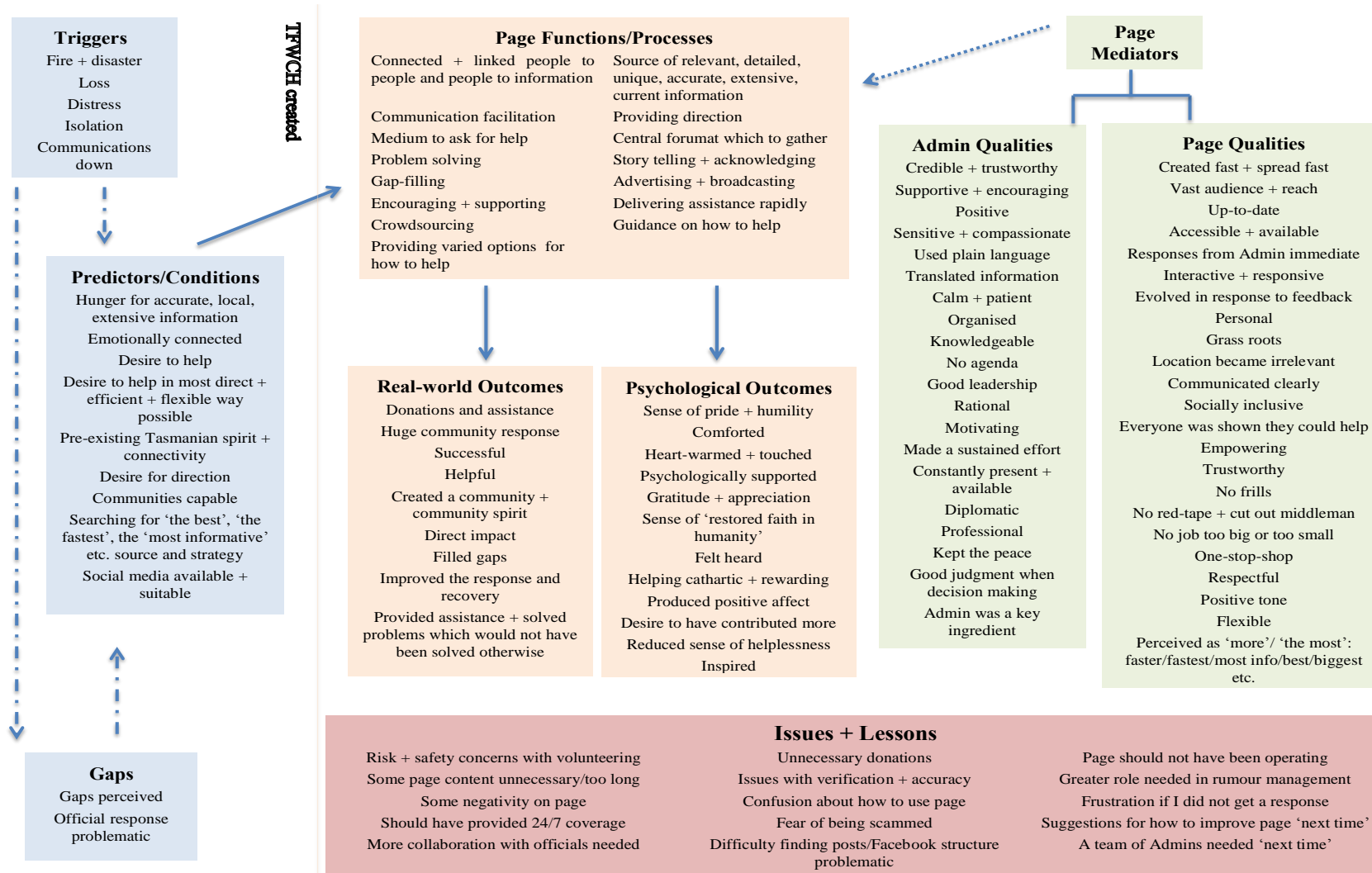


Figure 8.1. Qualitative Thematic Analysis 2: Triggers, mediators, functions, outcomes and lessons of TFWCH

Research Question 1

The first research question relates to whether social media can contribute to the quality of volunteering after a disaster: if it can help solve a number of long-term issues with spontaneous volunteers and emergent groups. To explore this research question, some of the key issues with spontaneous volunteers and emergent groups will be highlighted, and how emergent groups operating online may be able to ameliorate these issues will be examined. This research question was of interest because it is argued that low-quality volunteering can have a negative impact on response and recovery; therefore, if high-quality volunteering can be facilitated, then community resilience may be enhanced.

Within this research question, general comments and observations are made about how ‘improved’ volunteering can occur by utilising both social media, and emergent groups. A more detailed discussion of how this ‘improved’ volunteering can have an impact on community resilience is then explored in the following research questions.

Drain on resources.

A common complaint about spontaneous volunteers is that they use up scarce official resources in order to be managed and organised (Fernandez et al., 2006). A central goal of work examining spontaneous volunteering centres around trying to control or reduce them as a burden, rather than focusing on how to harness them or utilise them effectively, for example, in the introduction to the work conducted by the Red Cross into the characteristics of spontaneous volunteers (Cottrell, 2012),

The aim of the project is to enable consistent good practice in jurisdictions and agencies that choose to use spontaneous volunteers as part of their emergency management activities. For those jurisdictions and agencies that do not wish to use spontaneous volunteers, the framework offers tools to

manage and redirect the anticipated influx of spontaneous volunteers. For these organisations, the aim is to prevent a drain on resources that must be dedicated to their core business. (p. 2)

The analyses presented in this thesis demonstrated that volunteers were able to access information online using social media²⁴⁵ and therefore gain an understanding of the needs of the community. They were then able to self-organise to enact change, rather than being a drain on resources by arriving at the disaster zone and asking an official responder how they might be able to help, as is often the case (Fritz & Mathewson, 1957).

If armed with accurate and relevant information and the ability to communicate, online volunteers can manage themselves, rather than requiring management by others. The ability for potential volunteers to have a much more informed view of the disaster situation due to information exchange on social media, and to be able to collaborate with other like-minded helpers through communicating on social media, which is what occurred through TFWCH, means that they can engage in volunteering behaviours in a self-directed manner rather than arriving on scene and awaiting instructions.²⁴⁶ This ability to self-organise is a positive feature of online groups that can reduce the burden of spontaneous volunteers on official responders.

The drain on official resources can potentially be lessened with an emergent group such as TFWCH operating, as members of the community can congregate on these pages in order to source help, offer help, and access psychosocial support. For

²⁴⁵ It cannot of course be confirmed if all volunteers accessed information online, or to what extent they used this resource, or how they interpreted the content, but substantially more information was available online than would otherwise be available without the tools of social media.

²⁴⁶ Although it is beyond the scope of this thesis, Dan Thompson, an individual who mobilised a community to assist with cleaning up after the London Riots of 2011 (see Twitter, #riotcleanup), discusses the idea that volunteers need 'permission' in order to start helping, as they are acutely aware of getting in the way or doing the wrong thing. This is an idea worth pursuing in future studies as in the current case study, the Administrator certainly was giving people 'permission' to go forward and help. The two creators of the Christchurch "Gap Filler" emergent group that formed post-earthquakes referenced Thompson when speaking at a conference on urban renewal that the author attended in 2013.

example, in the analysis in Chapter 8, a participant noted that they appreciated TFWCH because it meant they did not have to spend “hours” on the phone to the emergency services.

Offline emergent groups can of course do the same – operate independently in response to a perceived gap. However it is argued that by using information provided by the community in an online space, volunteers can be better informed about the situation at hand, resulting in an improved response, as well as access to more community members. As per Norris et al.’s model of community resilience (2008, see Figure 2.2), having greater access to information is a contributor to community resilience.

Another critical issue with the management of spontaneous volunteers as far as the potential drain on official resources is concerned is matching volunteers to suitable jobs and tasks. An emergent group such as TFWCH can facilitate in this situation, by operating, in a way, as a structured mediation resource, or a marketplace or ‘village green’. Through the page, people could post requests, which were often specific, and the readers of the page were then able to come forward if they were able to assist. For example, as demonstrated in the analysis in Chapter 6,²⁴⁷ an auto electrician who could help fix a damaged boat was requested, and a reader of the page was then able to come forward and help with this task. In this way, offers of help can be matched with requests for help in a seamless manner, which would either be too slow or not possible through either an offline emergent groups or an official agency. As per Norris et al.’s model of stress resilience over time (2008, see Figure 2.1), rapidity is a key characteristic of resource allocation in order to increase adaptation post a disaster event.

²⁴⁷ See Chapter 6, Page Function: An Arena for Requesting Help

Another way an online emergent group may assist with reducing the burden on emergency services and agencies in a disaster is that it provides an avenue through which people can access social support and psychological first aid, reducing the likelihood of members of the public contacting formal responders simply due to the need for comfort, support, or reassurance, which often occurs (Volunteering Queensland, 2011). This is explored further in Research Question 3.

As discussed in Chapter 1, little is known about the activities of spontaneous volunteers during an actual disaster (as opposed to how experience is described post hoc), and a lack of in-depth understanding about their behaviours may contribute to the negativity directed towards them (Tierney, 2011). The analysis in Chapter 7²⁴⁸ explored the different volunteering activities of the members of this emergent group. This analysis has shed light on the contributions of emergent groups in a disaster, and it is encouraging that many of these activities are useful, such as giving direct donations, sharing information online, offering support and praise, giving assistance to fundraisers and making financial donations. Furthermore, the analysis in Chapter 7²⁴⁹ has shown that without an online emergent group such as TFWCH, potentially, a considerable amount of volunteering would not have occurred.

Thus a public page such as TFWCH can help reduce the burden on emergency services, as well as facilitating more effective volunteering by helping to match needs with offers. An online emergent group can also potentially encourage more volunteering than would occur in the absence of such an initiative.

²⁴⁸ See Chapter 7, Volunteering activities: Q1 and Volunteering Activities: Q2

²⁴⁹ See Chapter 7, Page Impact: Q1 and Page Impact: Q2

Control and collaboration

As discussed in Chapter 1,²⁵⁰ offline emergent groups can be difficult to communicate with or monitor, as these groups have unclear, changing boundaries, fleeting membership, fluid and dispersed leadership, and the tasks they work on are unstable and constantly change (Drabek, 1986; Drabek & McEntire, 2003; Majchzrak et al., 2007). It is critical that emergent groups do have an understanding of their boundaries, and communicating with them about this issue is imperative (Wachtendorf & Kendra, 2004). It is understandable that formal agencies would want to be up-to-date with the activities of emergent groups, so that the official response and the safety of the community are not compromised.

A key benefit to emergency management professionals of emergent groups that operate online is that they can be monitored and observed, and more easily communicated with (assuming, of course, that the goals and information needs of an online emergent group can be ascertained). It is argued that social media can be leveraged substantially to make sure emergent groups are operating within their boundaries by enabling formal responders to monitor and communicate with these groups.²⁵¹

The results from Chapter 6²⁵² and Chapter 8²⁵³ demonstrate that a key reason people were coming to the page was to source information. Over the page the Administrator was able share both official and unofficial information about the response and the recovery. It is important that the community has a good understanding of the unfolding emergency situation, and is as informed as possible,

²⁵⁰ See Chapter 1, Offline Emergent Groups

²⁵¹ This has important implications for how members of formal agencies are trained, and the structure of their systems. It is recommended that formal agencies operate 'liaison officers' who are specifically prepared and briefed to work as the linkage between community groups and the official responders, in a way that enhances the goals of collaboration, and shared responsibility.

²⁵² See Chapter 6, Page Function: A Platform for Sharing Information

²⁵³ See Chapter 8, Positive Attributes

in order to make decisions and engage in safe behaviours during the disaster. For this reason it is argued that using social media to inform the public assists with encouraging the public to make safe decisions before acting. Emergent groups and spontaneous volunteers often only have a narrow view of events, and base their decisions on the limited knowledge they have. Social media can assist with better educating and informing the public of the wider situation so that the volunteering activities they then engage in are more informed. As per Norris et al.'s model of community resilience (2008, see Figure 2.2), having access to information and a way to communicate is a key component of resilience.

Wachtendorf and Kendra (2004) and Voorhees (2007) recommend that emergent groups are facilitated and supported, but not controlled. It is argued that it is easier to monitor the activities of emergent groups, and facilitate and engage with them than those that form offline. Thus social media is a promising avenue for improving the quality of volunteering completed by the community in a disaster simply because using these tools, the crowd can more easily be both collaborated with and monitored. In terms of shared responsibility, social media is a useful tool.

Excessive donations

Another critical recurring issue within emergency management is the handling of donations, or material convergence. Material convergence “can be documented in every peacetime disaster” (Fritz & Mathewson, 1957, p. 22). The presence of excessive material convergence and the fact that these donations impede emergency management is well documented (AGD & Australian Red Cross, 2010; Kendra & Wachtendorf, 2011; St. Johns & Fuchs, 2002; Tierney, 2002). Fritz and Mathewson (1957) identify the problem as one of communication, as the mass media

is not well adapted to inform the public about the strategic and selective needs during a disaster. This means that once an appeal has been made, there is little recourse. Excessive donations can have an impact on community recovery, as well as overloading official responders. In terms of resilience, avoiding excessive donations should be a goal within emergency management.

It is proposed that emergent groups and social media can contribute to the solution to this problem, in two ways. Firstly, over social media, both well informed emergent group leaders, members of the community and authority figures can communicate to the community precisely what is and is not needed in a timely manner. The speed of communications over social media means that in the changing circumstances of an emergency, the community can be informed when the situation changes. For example, particular items may be needed at one moment, and then depending on how the situation has evolved, those items may no longer be needed. By communicating with the public over social media, they can be fully informed as soon as the needs change. Thus the speed of social media is a key benefit in this case. Both speed of resource allocation and the exchange of information are key components of resilience, as per Norris et al.'s frameworks (see Figures 2.1 and 2.2).

It is apparent from both of the analyses in Chapter 6²⁵⁴ and Chapter 8²⁵⁵ that the Administrator was attempting to manage donations, for example, by telling people when saturation of donations in a particular location had been reached, in addition to encouraging financial donations instead. There is evidence in the analyses of both Chapters 5²⁵⁶ and Chapter 8²⁵⁷ that over the page the Administrator made a concerted effort to control and manage donations.

²⁵⁴ See Chapter 6, Page Administration and Management

²⁵⁵ See Chapter 8, Positive Attributes

²⁵⁶ See Chapter 6, Page Administration and Management

²⁵⁷ See Chapter 8, Positive Attributes

The second way that social media and emergent groups can provide a solution to the issue of excessive donations is by helping people connect one-on-one with each other, to facilitate the giving of specific, direct, needed donations, rather than just general donations of items. In the analysis in Chapter 6²⁵⁸ it was clear that people wished to help in specific ways in order to reduce wastage. In Chapter 7²⁵⁹ the analysis showed that the most common volunteering behaviour completed by the individuals helping via the page was to give a direct donation to someone in need. Thus an online emergent group operating over social media was able to facilitate direct donation giving rather than just general donations, which can be overwhelming and problematic.

There are still challenges however. There were a small number of comments in Chapter 8²⁶⁰ analysis concerning excessive donations. Some respondents felt that despite the efforts of the Administrator, there were still too many donations to those in the affected area. This can of course have a negative effect on resilience – making people feel overwhelmed, lowering their self-esteem, and having a negative impact on the local economy.²⁶¹ Although the issue is likely to continue to challenge formal responders, it is argued that the tools of social media offer a promising and positive solution to a recurring problem. Thus social media can be seen as something of a double-edge sword, but in this thesis it is argued that the benefits likely outweigh the negatives.

²⁵⁸ See Chapter 6, The Response

²⁵⁹ See Chapter 7, Volunteering Activities: Q1

²⁶⁰ See Chapter 8, Negative Outcomes

²⁶¹ It cannot be established how many donations were coming in as a result of actions from TFWCH, and how many were coming in due to other members of the community coming forward to help without any contact with the TFWCH page at all, because the presence of material convergence is well documented in most disasters.

Other issues with online emergent groups

Although there are a number of positives of emergent groups that form online, there are also a number of negatives that need to be considered.

The amount of data flowing online can be problematic if a social media page is not carefully managed and apomediated, which will be discussed in Research Question 4 below. The results of the analysis in Chapter 8²⁶² showed that some respondents felt there were too many posts, they were too long, or that posts that had come up on the page were then difficult to find again. In the current case study, a website was created to work in tandem with the TFWCH Facebook page in order to offset these issues, and it would have been preferable if this had been created immediately to help with this issue. In 2013 Facebook introduced hashtag functionality, which will be useful in the future, as both the Administrator and users of the page can be encouraged to ‘categorise’ their posts using hashtags. However it is likely that data overload will still be an issue for online emergent groups. A potential solution, to use unofficial or official virtual operations support teams (that is, teams of trained volunteers who monitor and organise the information available on social media), is explored in the final chapter of this thesis.

Another issue with social media (identified in the present analysis) is that if there is only one Administrator, they might become bored or overwhelmed with the process and abandon or shut down a page. The analysis of other social media pages that were operating during the disaster included in Chapter 8²⁶³ noted that the Administrators of other pages were criticised for a range of reasons, such as not providing feedback, becoming bored with the process, collecting donations with nowhere to put them, spreading incorrect information, and having ‘hidden agendas’.

²⁶² See Chapter 8, Negative Page Attributes

²⁶³ See Chapter 8, Other Pages: Positives and Negatives

For this reason having multiple Administrators, and skilled Administrators, is important; an issue discussed in Research Question 4 below.

It is beyond the scope of this thesis to explore this topic in detail, but it has been documented that the origin and spread of rumours can be of concern on social media during crises (Acar & Muraki, 2011; Bruns et al., 2012; Castillo et al., 2011; Taylor et al., 2012).

In the current case study, a number of rumours circulated on TFWCH. For example, there was a rumour that multiple fatalities must have occurred, as men in white forensic suits were searching destroyed properties.²⁶⁴ The Administrator attempted to deal with rumours by asking for people to only post facts. This seemed to be an effective strategy in the main, although a comprehensive analysis was not undertaken to explore this issue, as it would have been necessary to examine strings of posts and comments to establish the ‘life’ of a rumour.²⁶⁵

However, one of the Administrator’s strategies for a particular rumour was to ignore it until more information emerged, and this perhaps was not the best strategy. It was clear from early on that Tasmania Police were involved with the particular issue and the Administrator decided that not posting about it was the best way to reduce the discussion around the whole issue, yet people still discussed it on other posts. Thus a preferable strategy may have been to acknowledge the rumour and declare that more information was being sought; or to ask people to be patient and calm while more information came to light. To think in broader terms, it is clear that the ability for social media to spread misinformation is a serious threat to resilience, as people need accurate information during times of crisis.

²⁶⁴ In reality, this protective equipment was worn as a matter of normal procedure while the search for human remains was being conducted, a search which did not result in any findings.

²⁶⁵ This would be, of course, a relatively straightforward thematic analysis to conduct, and would be recommended for future research.

It is important to appreciate that social media can interact with the “rumour mill” in more positive ways. Local knowledge and discussion over social media often results in the correction of rumours, whereby other users swiftly note the right information, and in this way pages can be self-regulating (Bird et al., 2012). As Alexander (2013b) notes, mass participation tends to help with the rectifying of the unregulated free flow of information over social media. The self-moderation on Facebook or collective error correction is a well-known phenomenon, where the crowd corrects misinformation or provides answers rapidly if a post is not accurate (Sutton et al., 2008). People who are a part of an online community will often self-correct information before official responders even have a chance to get to it (Veil et al., 2011). In this way, the functionality of social media means that incorrect information can be rapidly corrected, and updates can be given quickly as a situation evolves. In terms of resilience building, the ability for social media and online emergent groups to provide accurate information and to correct misinformation rapidly is positive.

It is important to consider these issues, as rumours and misinformation can be spread through the mass media and official bodies just as easily as online (Alexander, 2013b). Issues around information accuracy and trustworthiness do not only affect community level Facebook pages, as can be seen in this graph from Bird et al. (2012, Figure 9.2). This graph shows the perceived accuracy, timeliness, utility and trustworthiness of a variety of sources during major flooding in Queensland and Victoria in 2010 – 2011.

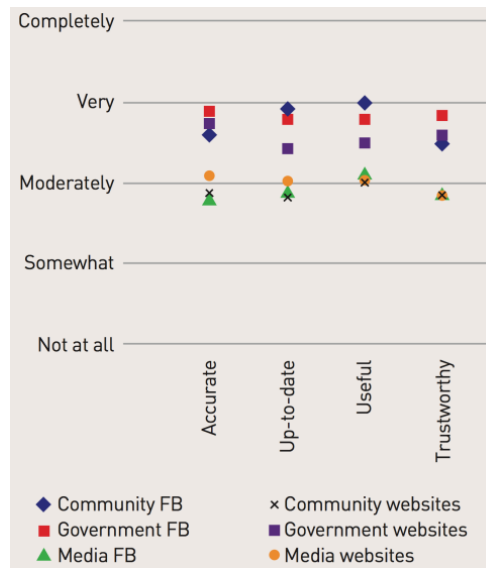


Figure 8.2. Respondents' perception of information from government, community and media sources in terms of accuracy, timeliness, usefulness and trustworthiness (Bird et al., 2012)

It seems that it is critical that there is an authoritative voice in the space when it comes to rumour management (Acar & Muraki, 2011; Smith et al., 2013).

Alexander (2013b) describes personal communication with a fire brigade chief after a freight train explosion in 2013. He noted that much of the information coming from the public was inaccurate, but it could not be corrected, as the fire brigade on the ground were facing a very unstable situation and they had little accurate information themselves to counteract the rumours or exaggerations with. As Alexander states,

When a situation is simpler and more easily interpretable, one may be able to rely on self-policing of social media by users who are concerned to get the facts right, but when the true facts are, on the instant, unobtainable or in dispute, that cannot be the case (n.p.).

This points to why also having access to official information, such as through official social media pages and accounts or the ability to liaise directly with authorities, is critical.

The findings of the current study, that rumours did not cause the TFWCH page to break down, mirrors findings in previous research. For example, after the 2011 Japan earthquake, little evidence was found for the successful propagation of rumours or inaccurate knowledge even though there was a massive amount of usage on social media during the time (Hjorth & Kim, 2011). In the study by Hughes et al. (2014) which looked at how fire and police departments used social media during Hurricane Sandy (n.p.):

Cases of rumor correction appear, although not frequently, indicating that the amount of rumor that people mistakenly take seriously is not high; nevertheless, attention to rumor demonstrates a commitment to both social media as a meaningful communication venue that the public attends to, and to ensuring that its contents are accurate. (n.p.)

Thus in response to Research Question 1, it is proposed that a number of the critical issues that plague spontaneous volunteering and emergent groups in times of crisis can potentially be improved through the functionality of social media, which can then in turn have a positive impact on community resilience. Using social media, the community is better able to self-organise around the needs of those affected – in an informed way, rather than relying on official organisations to provide direction. This means they are empowered and competent, important components of Norris et al.'s model of community resilience (2008). Social media can facilitate matching volunteers with needs in a rapid way. An online emergent group can provide the community with high-quality information so that individuals can contribute to the response and recovery in a more informed capacity.

From the perspective of formal responders, these groups can be more easily monitored, controlled and collaborated with as their activities can be seen online. The speed at which social media functions also means that rumours can be addressed quickly, and the needs of the community can be explained to those wishing to help

so that donations can be better managed. How these ‘improvements’ can contribute to community resilience are explored in more detail in the following research questions.

Research Question 2

The second research question relates to whether social media can contribute to community resilience, as operationalised by Norris et al. (2008), and this will now be explored. As introduced in Chapter 2, two models put forward by Norris et al. informed the development of this research question, and each will be examined in turn.

Robustness, redundancy, and rapidity

The main element of interest to this thesis is the box in Figure 2.1 relating to resources. The model proposes that there will be improved resilience if resources (objects, conditions, characteristics and energies that are of value) are sufficiently *robust* (strong and with a low risk of deterioration), *redundant* (easily substitutable with other resources in the event of deterioration), and *rapid* (the resource can be mobilised and used quickly) to buffer or counteract the effects of the stressor. These are known as the 3Rs.

As mentioned in Chapter 2,²⁶⁶ the other facets of this model could not be adequately examined with the available data. This thesis intended to explore whether a social media driven emergent group could facilitate the delivery of resources in a redundant, rapid and robust manner. It can then be proposed, as per Norris et al.’s model (2008, see Figure 2.1) that because of this successful mobilisation of

²⁶⁶ See Chapter 2, Community Resilience

resources, that transient dysfunction was more likely to lead to resilience, rather than vulnerability.

The question of whether the TFWCH page contributed to resilience by enabling resources that were robust, redundant and rapid will now be explored, using a few examples drawn from the analyses.

Robustness

The one key point to make in relation to robustness is that online emergent groups use a technology tool that is inherently resilient. Social media remains one of the more resilient technologies available in a disaster. The tool itself is robust. On the rare occasions in the past when Facebook has gone offline, it has only been for short periods of time. When cell towers are jammed during emergencies or Wi-Fi is overwhelmed and people find they cannot send emails, people can often still use social media as the platforms run off extremely low bandwidths (Bird et al., 2012). This means social media can be useful in a disaster: people are still able to share and exchange information, which, as per Norris et al.'s model of resilience (see Figure 2.2) is one of the four critical adaptive capacities needed by the community.

Another benefit of social media is its compatibility with smart phones and other handheld devices, as people can take it with them and use it in a wide range of situations. As seen in the analysis in Chapter 6,²⁶⁷ mobile technology was particularly important in the first week of the emergency.

However the weakness of the *technical infrastructure* that is needed to support Facebook (for example, people need powered-up phones to be able to access the Internet) is a potential limitation (Belblidia, 2010). Furthermore, access to the

²⁶⁷ See Chapter 5, Page Likes

Internet is still limited generally in many regional areas. Thus alternative methods of communication still need to be made available during disaster events. That being said, social media remains one of the most robust communication tools available.

Not only is the platform of social media robust, but also there is robustness in the people who utilise social media. That is, when using social media platforms, people can be robust resources in and of themselves. The fact that the Administrator was outside the area and not impacted by the immediate issues such as lack of power and water contributed to the resilience of this emergent group. This is a benefit of online emergent groups as opposed to offline groups operating right in the danger zone.

Rapidity

As is expressed by Norris et al. (2008, see Figure 2.1), in relation to resilience, speed is critical in a disaster. As the White Paper by the American Red Cross notes, many of the stories about people turning to social media in times of emergency have a similar thread, in that people in trouble turn to what they think will be the fastest way to get help, and this often means turning to social media (Blanchard, Carvin, Whittaker, Fitzgerald, Harman & Humphrey, 2010).

One of the most important ways that online emergent groups can positively impact community resilience is speed: social media facilitates rapid communication and information exchange (Ehnis & Bunker, 2012; Vieweg et al., 2010). With this communication, emergent groups can therefore mobilise and enact change rapidly.

The users of the TFWCH appreciated the speed with which tasks could be achieved and rapidity is a theme prominent throughout this thesis.²⁶⁸ For example, it

²⁶⁸ For example, see Chapter 8, Positive Attributes and The Page as Comparative/Superlative

is noted in Chapter 8²⁶⁹ that people appreciated how sometimes a need would be posted on the page, and within minutes, that need would be solved.

In terms of an emergent group assisting after a disaster, rapidity depends to a degree on the other two Rs – robustness and redundancy. Without a large crowd from which to draw resources from, resources cannot be sourced and then moved quickly.²⁷⁰ For this reason, the analysis in Chapter 5²⁷¹ that shows just how popular the page was is important, as it shows that the group did indeed have access to a large pool of resources which meant tasks could get completed quickly.

Through TFWCH, needs were posted and shared with a large audience, individuals who were in a position to help came forward, and resources were taken immediately and directly to where they were needed. Without an online emergent group operating in this way, this sort of direct engagement would be difficult to organise, if not impossible.

Thus the ability for an online emergent group to remove the ‘middleman’ or bureaucratic processes is powerful in terms of enabling the rapid allocation of resources in a disaster and therefore positively impacting resilience. For example, the sourcing of generators for the oyster hatchery was immediate and direct, which meant that the hatchery was able to continue operating without substantial loss.²⁷² Therefore in terms of response and recovery, when comparing to the slowness with which formal responses move, online emergent groups can contribute to resilience significantly simply due to their ability to source and move resources rapidly.

²⁶⁹ See Chapter 8, Positive Attributes

²⁷⁰ It is worth noting here that the Administrator of TFWCH already had a large personal and business network which may have provided the initial impetus for the page to flourish in regards to the number of initial followers. It is unknown whether this pre-existing connectivity is an important predictor for the success of an emergent group such as TFWCH.

²⁷¹ See Chapter 6, Page Likes

²⁷² See Chapter 4, An Anecdotal Introduction to *Tassie Fires - We Can Help*

Redundancy

In Chapter 5,²⁷³ the analysis showed the high number of ‘likes’ the TFWCH page had, thus there was a large audience from which to crowdsource from. This is vital and promising for all three of Rs: if one person could not solve a particular problem, it was likely that another individual would be able to step forward. A notable difference between offline and online emergent groups is their size. Offline emergent groups are usually small, often comprising only a handful of members, although sometimes as high as 100 members (Stallings & Quarantelli, 1985). The size of this online emergent group, and therefore, the number of members of the community able to contribute, was considerably higher, meaning the potential to solve a diverse range of problems was higher.

As Veil et al. (2011) note, “Facebook renders mass messaging convenient and quick through status messages. Even if only a relatively small number of friends view an emergency status, peer-to-peer social communication ensures that the message will spread rapidly among many networks” (p. 115). For-mukwai (2010) expresses the idea as follows:

Social media is partly a numbers game. The more fans, followers and friends a cause can generate, the better the outcome. This is so because people are the backbone of all social networks. To a large extent, the number of followers, fans or friends on that network, determine the net worth of an online group. Any cause or organization that has more followers has more social capital, power and influence that can be converted into measurable goals because networks come with connectors (p. 6)

Thus with a larger ‘team’ operating over social media, there is ample back up, or built-in redundancy and robustness.

Similarly, redundancy is apparent in Chapter 7²⁷⁴ and Chapter 8,²⁷⁵ where it can be seen that many different people were engaging in a variety of different

²⁷³ See Chapter 5, Page Likes

²⁷⁴ See Chapter 7, Volunteering Activities

volunteering activities. For example, 183 people identified that they helped in some way with transport or delivery. If one person ceased to assist, there were still plenty of other people doing that task. This was occurring in the emergent group studied by Voorhees (2007), whereby in some cases, within 24 hours, the pool of volunteers had completely changed but was still operating efficiently. When comparing this type of response with a traditional command-control response the benefits of having such a large and diverse resource able to help are clear, because disasters generally affect large areas and formal agencies may not have enough people in the right places at the right time.

An issue identified with this emergent group that could impact resilience is the lack of robustness and redundancy in regards to the Administrator herself. There was only one Administrator, with no back-up plan for another to help should she be unable to continue. The loss of the Administrator for whatever reason would have caused TFWCH to disintegrate. As seen in Chapter 8,²⁷⁵ many other pages disintegrated or performed poorly when the Administrator, for example, lost interest or became overwhelmed. Thus multiple Administrators are essential, even if this brings difficulties with other aspects of the response such as content consistency.

The administration of these types of responses can also be psychologically and physically difficult for those involved. Starbird and Palen (2011) found that digital volunteers operating remotely over Twitter to help with a disaster were emotionally exhausted by the event. Similarly, participants in the work by Cobb et al. (2014) reported that responding to event after event was hard and brought on ‘disaster fatigue’, and the ongoing commitment and exposure to stress, information overload and the traumatising nature of the events brought significant cost. For these

²⁷⁵ See Chapter 8, The Foundations and Positive Outcomes

²⁷⁶ See Chapter 8, Other Pages: Positives and Negatives

reasons redundancy needs to be built into responses such as TFWCH in order to preserve the role of the Administrator.

According to Norris et al. (2008), robustness, redundancy and rapidity are three adaptive capacities important for the diverse and changing needs of the community in a disaster. It is proposed that emergent groups turn to social media with an inherent understanding of its benefits. It is argued that an online emergent group can contribute to resilience by enabling a community access to resources in a robust, redundant and rapid way.

Community resilience as a set of networked adaptive capacities

The second model of interest to this project and specifically to this research question was first introduced in Chapter 2.²⁷⁷ Each of the four key networked resources that appear in the model put forward by Norris et al. (2008) will be examined now, considering evidence for how an online emergent group was able to facilitate these resources, thereby enhancing community resilience. These resources, as per the model (see Figure 2.2), are information and communication, community competence, social capital, and economic development.

Economic development

Norris et al. (2008) argue that in order to increase resilience, individuals need to have access to a diverse range of resources, which are shared and distributed equally, and it is critical that the most vulnerable members of the community are not neglected as far as resource distribution is concerned.²⁷⁸

²⁷⁷ See Chapter 2, Resilience

²⁷⁸ Fairness of risk and vulnerability to hazards is another element in Norris et al.'s (2008) model. This component sits largely in the area of preparation and mitigation and is not explored in this thesis.

Firstly, it will be argued that there were diverse needs in the community, and some people were more vulnerable than others. Secondly, it will be proposed that TFWCH enabled the sharing and distribution of resources in both a more comprehensive and a fairer way than may have been possible without the page. Finally, the issue of not being able to adequately access some resources is discussed.

In Chapter 8,²⁷⁹ the qualitative analysis of the four open-ended questions showed that people felt that little official support was available early on in the disaster from the authorities. They felt adequate resources had not been made available, and had not been equitably distributed.

Individuals then came to TFWCH in order to source the resources they could not access. In this way social media gave those in need a voice they may not have had otherwise, and exposed gaps that were present, which may not have been revealed to the public. In Chapter 6,²⁸⁰ the sheer range of both items and services offered to and requested by people was overwhelming (for example, offers of transport and delivery, people going in to the area with their boats, whitegoods, animal feed, clothing, furniture, money, childcare, fundraising items, giving money direct to informal recovery sites). Thus social media helped the community find out what resources were needed and where. This improved access to and allocation of resources is proposed to have increased community resilience.

In Chapter 7²⁸¹ the different volunteering behaviours people completed in response to the fires were explored, and this analysis gives an insight into whether resources were being made available through the emergent group that may not have been made available otherwise. The analysis of the impact of the page in Chapter

²⁷⁹ See Chapter 8, The Official Response: Negatives and Positives

²⁸⁰ See Chapter 6, Page Function: A Marketplace for Offers of Help

²⁸¹ See Chapter 7, Volunteering Activities: Q1 and Volunteering Activities: Q2

7²⁸² demonstrated that respondents felt that without TFWCH, their contributions would have been significantly less. For example, 183 respondents indicated they had assisted with transport and delivery. 53.6% of these respondents identified that TFWCH had impacted their decision to do this, which represents an additional 98 volunteers helping who are unlikely to have contributed in this way in the absence of the page. Overall it is encouraging that respondents indicated that TFWCH had a positive impact on and facilitated 46% of all volunteering behaviours completed by individuals, and on 30% of all volunteering done by businesses,²⁸³ suggesting that many resources were made available due to this online emergent group that may not have been available otherwise. To look more broadly then, it is possible that social media driven initiatives can have an impact on increasing the scale of volunteering completed by members of the community after a disaster event.

This is mirrored in the results of the analysis in Chapter 8²⁸⁴ whereby the respondents indicated that they felt that without TFWCH the recovery would have been worse or slower, and people would have been more disadvantaged (for example, not having access to water, medication or generators).

The results of the analysis in Chapter 7 support these findings, whereby participants who had been impacted by the fires (respondents to Q3) indicated that the page had been important to them during the disaster. For example, 55.9% of respondents indicated that TFWCH was useful for being able to get help from the Food Bank and 44.4% for being able to get help or goods from St Vincent de Paul's. Thus it is argued that online emergent groups and social media can help with increased resource availability and more specific allocation, and in turn, according to the model by Norris et al. (2008), with community resilience.

²⁸² See Chapter 7, Page Impact: Q1 and Page Impact: Q2

²⁸³ See Chapter 7, Page Impact: Overall

²⁸⁴ See Chapter 8, Positive Outcomes

One of the most important issues identified with disasters is not resource scarcity, but rather, the appropriate allocation of these resources – knowing who needs what and being able to get these resources to people when they are needed. The difficulty with distributing resources is an issue of coordination (Comfort et al., 2004). This page, and future pages like this one, potentially help to solve those issues, as social media offers a way to facilitate volunteers to operate directly with those in need. Thus it is argued that having people coordinate with each other online using social media can facilitate getting resources to people in a more equal and rapid way, which, as identified by Norris et al. (2008), contributes to resilience.

However, a number of potentially useful resources were not made available to the extent that perhaps would be desired. For example, only 29 volunteers helped with fencing (41.4% said the page impacted them doing this, representing an increase in 12 volunteers).²⁸⁵ Thus in regards to the model put forward by Norris et al. (2008), and the community being able to positively contribute and increase resilience, there is room for improvement in the community as far as resource sourcing and allocation. Regardless, to return Norris et al.'s model, the page was able to help with resource procurement and delivery, which in turn, contributed to community resilience.

Social capital

Norris et al. (2008) propose that if there is interconnectedness between members of the community, who feel socially supported, a sense of community, and an attachment to place, community resilience can be enhanced post-disaster. Norris et al. argue that resilience is enhanced if citizens have strong linkages with one

²⁸⁵ See Chapter 7, Volunteering Activities: Q1 and Q2

another and other organisations, and if they actively participate in their community. The pre-existing social capital, sense of community and attachment to place in the current case study will be explored, and how a social media page may enhance and capitalise on these elements is examined.

It is argued that through TFWCH, people came into contact with new networks and individuals that they were unlikely to come into contact with otherwise, thus they were increasing their number of weak or linking ties. It is argued that social media itself as a tool facilitates the growth and development of social capital when a central Facebook page is created and community members join and connect with other community members working on the same types of goals or needs. In Chapter 6²⁸⁶ it can be seen that in many cases, ‘strangers’ were helping ‘strangers’ that they had connected with through the social media page. As expressed by Belblidia (2010) this is one of the great features about social networking sites, as they can facilitate resident-to-resident communication, thereby potentially strengthening community networks.

The mass assault of people who want to help who converge on the disaster location is well established (Drabek, 1986), yet many of these volunteers cannot be used, so they look for ways to help themselves (Lowe & Fothergill, 2003). This means that although there may be many people who attempt to volunteer, few actually get used. After major flooding in Queensland, Volunteering Queensland received feedback from a number of volunteers who felt that there was so little volunteering jobs available that the experience of trying to help was like “seagulls fighting over a chip” (p. 6). Thus social capital and resources may be available in a community, but are not used. Through an online emergent group such as TFWCH it

²⁸⁶ See Chapter 6, The Response

is argued that more volunteers may be able to be utilised than without such a group. This is well supported by evidence from Chapter 7, whereby it is clear that a considerable amount of volunteering was completed (almost 50% of all volunteering) that people believed would not have been completed without the page.

It is proposed that Tasmania already has relatively high levels of social capital due to interconnectedness both online and offline. The Sensis Report examined the use of social media by Australians (Sensis & AIMIA, 2013). Although a potentially weak indicator of connectedness, it is nonetheless useful to note that in the report, the average number of friends, followers or contacts Australia-wide is 258, while in Tasmania, the average is 398.

This is essentially a discussion of ‘six degrees of separation’, the ‘small-world problem’ or ‘small-world networks’ (Milgram, 1967), whereby the world is ‘small’ enough and interconnected enough that individuals are never too many nodes away from other individuals who are engaged in similar activities. This can be summed up in the old adage, “it’s not what you know, it’s who you know,” which Woolcock and Narayan (2000) note is a common aphorism that succinctly sums up conventional wisdom around social capital. It is very likely that Tasmania already had high levels of interconnectedness, which was then facilitated by the social media page. For this reason a goal of disaster readiness should be enhancing pre-existing levels of ties and connectedness in the community.

Research by Beyerlein and Sikkink (2008) post 9/11 found that the reasons that motivated people to help after the World Trade Centre attacks were personal identification with the victims, such as knowing someone in danger on the day, feeling responsibility to help others, seeing those affected as part of a larger nationalistic family of which they also belonged, and living within a 10 mile radius

of Ground Zero. Similarly, Barraket et al. (2013) found the strongest predictors of volunteering were feeling emotionally connected and impacted by the event, geographic proximity, having time available, being exposed to stories in the mass media, being able to help due to coordination of activities in the mass or social media, and being able to get to the areas that needed help. In the examination of spontaneous volunteers who attempted to register with an official organisation after the Black Saturday fires in 2009, Cottrell (2012) found that 20% of respondents stated that identifying with the community was an important reason for wanting to help.

It is argued that social media can facilitate increasing the extent of those key factors, for example, bringing the disaster closer to people, informing them about the disaster to an extent that they too become emotionally connected, and increasing the sense of community in response to the event. Indeed the analyses in both Chapter 6²⁸⁷ and Chapter 8²⁸⁸ revealed that people felt that there was an abundance of community spirit (or sense of community) and community support (or social support), with many people willing to help. Respondents felt connected to the area and what was going on, which is known to happen in a highly connected community – community members share the damages and disruptions that affect the environments of which they are a part (Norris et al., 2008). Having a central hub such as TFWCH helped people to feel connected with the survivors as they heard and shared their stories. According to Norris et al., such contributions to social capital can enhance resilience.

It is also proposed that Tasmanians have a relatively high attachment to place, which is a construct that Norris et al. (2008) propose is important for social

²⁸⁷ See Chapter 6, The Response

²⁸⁸ See Chapter 8, Positive Attributes

capital.²⁸⁹ Attachment to place refers to the emotional bond people develop for a socio-physical environment over time (Brown & Perkins, 1992). The analysis in Chapter 7²⁹⁰ showed many respondents were born in Tasmania (77%), and most were living in Tasmania at the time of the fires (91%). Barraket et al. (2013) and Haines et al. (1996) note that studies consistently show that people who have resided in an area for a long time have a strong enough attachment to it. Research suggests that people who have lived in the same place for a period of time and have high levels of attachment to their community are more likely to provide support for others, and that identifying with the local community is more likely to cause people to assist after a disaster (Haines et al., 1996). While an online emergent group may not be able to increase attachment to place during a crisis, it may be able to allow members of a community with a strong attachment to place to translate this into meaningful action.

Social support is a key component of the model by Norris et al. (2008). In Chapter 6²⁹¹ the analysis shows the wide range of goods, services and assistance being offered over the page. How many of these offers were actually taken up cannot be confirmed, although there is ample evidence that many were. From a social support and psychological first aid perspective, whether or not these offers were taken up is, in some ways, beside the point. The offers simply demonstrated to those affected that help was available, enabling them to feel supported. As noted in the analysis in Chapter 8²⁹² seeing all the goodness of strangers over the page helped to distract people from thinking about how isolated they were, and respondents noted that TFWCH was vitally important for their psychological well-being. As argued

²⁸⁹ As with all case studies, it is important to consider how generalisable these findings are. It would be useful for future researchers to attempt to establish the levels of pre-existing attachment to place in a community, to explore the impact on resilience.

²⁹⁰ See Chapter 7, Demographic Information

²⁹¹ See Chapter 6, Page Function: A Marketplace for Offering Help

²⁹² See Chapter 8, Psychological State Creation

earlier, users frequently commented how comforting it was to see all the support over the page. Thus it is likely that TFWCH facilitated social support to the community through the page.²⁹³

In summary it is proposed that an online emergent group such as TFWCH can enhance community resilience after a disaster, both by increasing social capital by enabling people to congregate together online, and by providing a means for this social capital to actually be used.

Information and communication

According to Norris et al.'s model (2008, see Figure 2.2), people will have greater resilience if they have access to accurate, timely information, are able to communicate, can connect and tell stories, and are able to share their experiences and understandings of an event. The authors argue that people need to have access to trusted sources of information, as well as resilient communication infrastructure. They also point out the need for responsible media in a disaster, which fairly and accurately reports across a wide range of issues. Norris et al. propose that if these elements are satisfied, a community is likely to have enhanced resilience.²⁹⁴ It is argued that an emergent group operating over social media can contribute positively to a number of those elements.

As expressed by Palen and Liu (2007), people seek response relevant data and opportunistically and as well as actively providing it to other people during

²⁹³ See Chapter 8, Psychological State Creation

²⁹⁴ A key point to make is that just because information is disseminated, it does not necessarily mean it is enacted upon, or that all parties enact on it or understand it in the same way. It cannot be taken for granted that the public will adhere to recommendations and this is especially the case when there is noticeable uncertainty about the risks involved with following the recommendations, or uncertainty about exposure or consequences of exposure (Reissman, Spencer, Tanielian & Stein, 2005). This has been the topic of a considerable body of research in the past, because communicating risks and recommendations and information to the public is tricky, and the link between, for example, people hearing information about preparedness and actually doing something about it is tenuous (Paton & Johnston, 2001). Nevertheless the best that can be done at this point in time is put the information out rapidly and as comprehensively as possible.

times of crisis. In times of mass emergency, people engage in socio-behaviours where they intensely search for information (Dynes & Quarantelli, 1968). Taylor et al. (2012) examined why people were using social media during a disaster event, and found that the main reasons for turning to social media were to seek general information, to leave messages of support and sympathy, seek specific information from people, providing general information, respond to questions, request help from others (those directly impacted) and to offer direct help. Thus the similarities are clear with the results from the qualitative analysis in Chapter 6, which found that the three main functions of the page were as an information exchange, a place to offer help, and a place to request help.²⁹⁵

First and foremost it is argued that having TFWCH operating meant that the members of the population accessing information from the page were better informed about the situation, and therefore more likely to come forward and assist in useful ways. A study by the Red Cross of spontaneous volunteers found that media coverage was the main instigator for people to volunteer, with 81.2% of volunteers saying it was very important or important, followed by 61.7% of people saying that talking with other people about the event was the next big instigator (Cottrell, 2012). It is argued that the information provided through the TFWCH page had a similar effect, by informing people and encouraging volunteers to come forward.

The TFWCH page also provided another key element of the Norris et al. (2008) model by providing people with accurate, trustworthy and relevant information in a timely way. As discussed in Chapter 6,²⁹⁶ the Administrator was connecting to first-hand sources in order to try to get the highest-quality information possible. She was inviting people to view multiple different sources of information,

²⁹⁵ See Chapter 6, Results

²⁹⁶ See Chapter 6, Page Administration and Management

such as directing them to various websites and media releases. There were posts encouraging people to think critically and not dwell on rumours, and to go to the highest-quality sources of information such as the TFS website. As with many other facets of the page discussed in this thesis, these types of actions (such as providing links to other websites and encouraging people to access high-quality information) can be completed by Administrators of any social media pages created in response to disaster events.

While the page was able to use official information when required, it was also able to post content that was local and unique. Often this was information that was overlooked by traditional media. People commented in Chapter 6²⁹⁷ that the page was accurate and informative, and the same sentiments were reflected strongly in the results of Chapter 8.²⁹⁸ People were appreciative of being kept so informed, and particularly, they were grateful for the *nature* of the information they were getting through the page: official information, as well as information that was unofficial, informal, and local.

The analysis of Chapter 6²⁹⁹ explored the vast range of information that was made available across a variety of different topics (for example, how to get assistance with mental health issues, where to get financial assistance, and places offering child care). Information emerges as a key theme and topic in every single chapter in this thesis and TFWCH is praised for how it contributed to people's ability to access and exchange information.³⁰⁰ This can be interpreted as collective intelligence, a concept identified by Vieweg et al. (2008). People are able to come together and exchange all the small pieces of information that they have from where

²⁹⁷ See Chapter 6, The Response

²⁹⁸ See Chapter 8, Positive Attributes

²⁹⁹ See Chapter 6, Page Function: A Platform for Sharing Information

³⁰⁰ For example, see Chapter 8, Gratitude and Praise

they are which all combines to paint a bigger picture of precisely what is happening. It is argued that the way this online emergent group could enable people to source and exchange information is one of its key benefits, and according to the model put forward by Norris et al. (2008), potentially contributes to community resilience.

The analysis in Chapter 7³⁰¹ showed how important different sources of information were to respondents. Across all groups, the TFWCH page was the most important source of information, followed by the TFS, the ABC, and then friends and family. Thus for many of these respondents the page was considered more important than the more legitimate, official sources. When considering these results through the framework proposed by Norris et al. (2008) for community resilience it is clear that an online emergent group can positively enhance resilience, through giving the public using social media access to more or different information.

It is proposed that this online emergent group enabled people to communicate, which according to the model put forward by Norris et al. (2008), enhances community resilience. One of the greatest benefits of social media is the type of communication it enables; information can be communicated from both the top down and the bottom up (Belblidia, 2010). If communication is considered critical to community resilience, then social media as a tool holds much promise as it facilitates communication in ways not seen before. For example, many people can be reached instantaneously, and this many-to-many communication is different to one-to-many (such as the radio) or many-to-one (such as calling an emergency hotline phone number).

Norris et al. (2008) stress the importance of resilient infrastructure for enhancing community resilience. The fact that social media is a resilient tool was

³⁰¹ See Chapter 7, Preferred Media

discussed in response to Research Question 1. As is noted by Bird et al. (2012), the ability to use social media via smartphones even when power disruptions have rendered other sources impossible, such as radio and television, is one its big benefits. Yin et al. (2012), in their studies on the use of Twitter after the 2010 and 2011 Christchurch earthquakes noted that social media was used extensively even when other types of communication systems were damaged. As was noted in a report from the Department of Homeland Security, Craig Fugate, the head of FEMA at the time, notes that one of the key lessons from the 2010 Haitian earthquake was how quickly cellular networks bounced back, even when the physical infrastructure in the area was destroyed (2011b).

Thus it is argued that helping a community communicate over social media is a way to enhance resilience. The analysis in Chapter 6³⁰² revealed that communications infrastructure was gravely affected during the crisis, but people were still able to get information from the page or post information on the page. Some information was ‘trickling’ back to the TFWCH page, either through people who had enough battery power to connect online, or through people who had visited the area by boat or convoy, and who were bringing information back to the page. A key way that people were utilising the page was that friends and family ‘on the outside’ were monitoring what was happening, then informing friends and family in the area when they were able to get through via telephone or online. It would be prudent to explore the issue of connectivity further, as communication is such a critical part of resilience.

As Veil et al. (2011) note, “While the use of social media in most cases is free, the technology needed for access is not” (p. 118). The ‘digital divide’³⁰³ is an

³⁰² See Chapter 6, The Emergency

³⁰³ A definition is given by DiMaggio et al. (2001): “By “digital divide,” we refer to inequalities in access to the

ongoing issue to consider. Addressing vulnerability in complex communities needs careful consideration (Belblidia, 2010), and enabling people to have access to the Internet and mobile technology should be a goal within emergency management (Jaeger et al., 2007). Both Murthy (2011) and Huang et al. (2010) note that it is often the people who are most in need of support who are not connected or do not have access or the understanding of the internet to be able to use social media. Some groups get more social support after a disaster than others, with race, age and education key factors that moderate how much help people get after disaster (Norris & Kaniasty, 1995). An issue that therefore needs to be carefully considered is whether social media improves this situation by giving people a voice, or makes it worse, with the most vulnerable unable to have a voice due to not being connected online. For this reason social media should be seen as an additional tool to be used during emergency situations, rather than a replacement tool.

Another element relating to information and communication raised by Norris et al. (2008) is story-telling and sharing. The community was able to connect through TFWCH and engage in story-telling and sharing, something that Norris et al. (2008) propose is important for resilience. In the analysis of an emergent group which emerged after a hurricane in North America, Gardner (2013) noted that there was a need for volunteers to get together and process their day.

At the end of the service day, volunteers would debrief and share their experiences, emotions, frustrations, and successes with fellow volunteers, a process they referred to as “circle.” Raja explained that early on, volunteers realized a need to decompress and process their experience... Raja explained that the purpose of these meetings was to allow volunteers the opportunity to collectively share their experiences, air grievances, problem solve, and decide how issues would be addressed. When a member of the group raised a concern, volunteers would discuss different solutions or approaches and decide collectively the best course of action. (p. 246)

Internet, extent of use, knowledge of search strategies, quality of technical connections and social support, ability to evaluate the quality of information, and diversity of uses.’ (p. 310)

The functionality of Facebook facilitates story-telling and sharing, similar to “circle” process detailed above, as people can congregate and chat using the comments function under each post. Without a key online hub for people to congregate at this is something that would not as easily occur. In the case of TFWCH, an online “circle” had been created. It is therefore argued that this social media driven emergent group contributed to the element of story-telling and sharing considerably. As can be seen from the analysis in Chapter 6³⁰⁴ and Chapter 8,³⁰⁵ the Administrator was regularly sharing stories, reflecting on the successes of the emergent group, and giving progress reports.

Norris et al. (2008) also highlight the importance of a responsible media during a disaster. Social media arguably makes traditional media and responding organisations more accountable, as the general public can have a voice in the space. Prior to the Internet age, reports of the response activities of official agencies were only available in a filtered form through the media or released via tightly controlled press statements from the authorities involved (Hughes, St. Denis, Palen, & Anderson, 2014). This meant that the public might not be receiving the ‘whole story’. With the use of social media, the general public can be more engaged in the conversation, and throw light on the potential disparities between the messages that formal responders are giving, and what is really happening on the ground.

However, this can cut both ways, as media outlets routinely use social media as their first publishing platform. This means the competition between outlets to get stories first now takes place in a world without deadlines. All too frequently, inaccurate information is posted in haste after a disaster. This posting of inaccurate information is caused, in part, by the pressure of trying to break news. Online

³⁰⁴ See Chapter 6, Page Administration and Management

³⁰⁵ See Chapter 8, Administrator Attributes and Positive Attributes

emergent groups are not immune to these dynamics and need to be aware that information published by an established media outlet may not necessarily be accurate, particularly in the early stages of a disaster event.

The ‘advertising’ of a disaster event that can happen through traditional media to raise awareness about what is happening in a place is valuable, and the convergence of syndicated news media to an emergency brings national and international attention to local issues (Sutton et al., 2008). This can have a positive impact on community resilience, increasing the support given to those affected.

However, traditional news outlets tend to focus on serving a broad audience – often in a sensationalised way – and they frequently struggle to accommodate diversity and rapidly changing needs and issues. Therefore, the relevance of their content can be low and inaccurate to local communities on the ground. These issues have paved the way for peer-to-peer, backchannel communication over social media to occur (Sutton et al., 2008). As per the model proposed by Norris et al. (2008), social media can potentially assist with responsible media, as people are able to communicate the reality of a situation that may not be being communicated to the wider population.

Community competence

In Norris et al.’s model (2008) (see Figure 2.2), the authors propose that the key elements of community competence relate to community members’ ability to engage in collective behaviours and think critically in order to solve problems, and to engage in meaningful action. The model proposes that if people can problem solve in flexible and creative ways, resilience can be enhanced. They also note the importance of effective collaboration, and community empowerment. These

elements combine into the key networked resource of community competence, which in turn can potentially increase a community's resilience.³⁰⁶

There is ample evidence in the analyses presented in this thesis of quality collaboration and careful problem solving – not just in the page as a whole (for example, the community working together to source generators and professional assistance for the hatchery that was described in Chapter 4³⁰⁷) but in the multiple smaller groups that formed in response to needs during the disaster. In Chapter 6,³⁰⁸ there is evidence of the splinter groups that were forming, with local leadership, and with a specific need in mind: groups, such as the emergency vet clinic, were mobilising to focus on specific goals. This was occurring in a similar way to the individuals documented by Gardner (2013) when looking at emergent groups post-Hurricanes Katrina and Ike.

From the back stage, volunteers collaborated to create a decentralized and radically democratic organizational model that privileged spontaneity over bureaucracy and valued unscripted and improvised behaviors over those circumscribed by centralized, command-and-control leadership. (p. 245)

In Chapter 5³⁰⁹ the analysis revealed the massive numbers of followers on the page. Having such a large following was critical as it meant a diverse range of resources would potentially be made available over the page, which allows for improved problem-solving and even more collaboration. With the wide range of needs in a disaster, spread over a large area, it is important to have a large group of people assisting in order to be able to solve multiple problems simultaneously.

It was not a fortunate by-product, or an accident, that individuals involved in this emergent group were empowered: empowerment was an *essential* component. It

³⁰⁶ Political partnerships are another key part of Norris et al.'s model (2008). This is not explored in this thesis comprehensively, but one aspect of this – the importance of an emergent group being able to establish legitimacy amongst authority figures and the wider community is explored in Research Question 4 below (see Legitimacy).

³⁰⁷ See Chapter 4, An Anecdotal Introduction to *Tassie Fires - We Can Help*

³⁰⁸ See Chapter 6, The Response

³⁰⁹ See Chapter 6, Page Likes

was essential to the functionality of this emergent group that citizens were empowered to come forward and help. Due to the scale of the disaster and the desire to solve problems as quickly as possible, it was critical that people used their initiative, knowledge and connections to work independently on the response and recovery in any way they were able to. In this way, the page operated collaboratively, rather than in a command-control capacity. According to Norris et al. (2008), empowerment is an important component of resilience, thus it is argued that online emergent groups such as TFWCH that facilitate community members being able to enact change contributes positively to rapid recovery.

The ability for the community to collaborate and engage in community action to assist after a disaster is a key component of resilience (Norris et al., 2008). Through TFWCH people were able to connect with other people in pertinent and timely ways. This ability to effectively cut out the middleman is powerful, and the way members of this emergent group were able enact change by linking up over social media is in interesting contrast to the research of the people who had volunteered post September 11 by Lowe and Fothergill (2003). The authors noted,

Like Jack, many of the spontaneous volunteers faced barriers to serving, and some of them demonstrated opportunistic and sometimes deviant behaviors in order to overcome those barriers. Participants described difficulties in having useful skills to offer, in finding needs to fulfill, and in dealing with overwhelmed response systems. The spontaneous volunteers in this study described frustrations of long lines, uncoordinated leadership, disorganized lists, and unclear information about what to do immediately after the attacks. (p. 300)

In this way it can be seen that social media and online emergent groups have capacity to assist the community to collaborate and engage in community action, thereby enhancing a community's resilience after a disaster, as operationalised by the model put forward by Norris et al. (2008).

Norris et al. (2008) also propose that resilience is enhanced when a community can problem solve together in a flexible and creative manner, and if they can think critically as they use problem-solving skills to address issues as they occur in the chaotic and changing environment that is a disaster. The current analysis revealed that this emergent group was calm, and had the capacity to evolve, improvise, change and adapt. For example, with ongoing communication with the Food Bank, the users of the page could be informed immediately when different items were needed, or as soon as a request for an item had been fulfilled, it could be communicated over the page.

There is ample evidence in this study (see Chapter 6³¹⁰) of how flexible and rapid online social media driven emergent groups can be. For example, in the case of TFWCH, larger boats could not launch from the jetty that was being used to organise goods being delivered to the Peninsula. This is because the weather deteriorated early on in the recovery, and it was rapidly decided that only larger boats should travel to the Peninsula, and smaller boats were encouraged not to leave port. A post went out over the page informing people about this and that there would be a new drop-off point for donations at a larger jetty. The ability to react and respond immediately like this to an evolving situation is something characteristic of the way communication happens over social media. While offline groups and official responders could (and do) respond to evolving situations, it is argued that social media driven emergent groups can do it faster and more efficiently. As per Norris et al.'s model of adaptability over time (see Figure 2.1) rapidity is a key component contributing to how quickly people return to pre-event functioning.

³¹⁰ See Chapter 6, The Response

The ability for an emergent group to evolve and improvise as the situation changes like this is a key component of their importance in a disaster situation, as they are able to respond and adapt more quickly than other organisations or agencies that must function in much more centralised ways. According to Norris et al. (2008), this flexibility and creativity is a key part of enhancing community resilience, and it is argued that an emergent group online over social media can be highly adaptive to changing conditions.

This research question has explored how an emergent group operating online was able to potentially contribute to the resilience of a community after a disaster. It is argued that many elements of Norris et al.'s (2008) model were satisfied by the online emergent group, and that the potential for emergent online groups to contribute to resilience must be acknowledged, and these groups supported.

When examining an emergent group that evolved after September 11, Eyre and Brady (2013) comment that the group was “impressive, but not unique” (p. 66). It seems some groups manage to make it work, while others do not, as stated here by Granovetter (1973),

...some communities organize for common goals easily and effectively
whereas others seem unable to mobilize resources, even against dire threats.
(p. 1373)

Thus while in the current case study it can be argued that an online emergent group enhanced community resilience, plenty of these emergent groups fail, and future research examining other emergent groups is desperately needed before conclusions can be made.

Research Question 3

To recap, the third research question relates to whether there is evidence that *psychological first aid* could be provided by this emergent group, and if the concept is adequately represented in Norris et al.'s model (2008, see Figure 2.2). The five elements of psychological first aid are to promote safety, calm, connectedness, self-efficacy and hope (Burke et al., 2013).³¹¹

First it will be argued that psychological first aid was needed – both for those impacted, but also for those in the wider community. Secondly it will be argued that this emergent group was able to provide psychological first aid. Thirdly, where psychological first aid might fit within Norris et al.'s (2008) model will be explored.

Psychological first aid needs

Findings from the qualitative analyses in both Chapter 6³¹² and Chapter 8³¹³ show that the disaster had been psychologically distressing, stressful and scary for those directly impacted: people were frantic, distressed, traumatised, isolated, trapped, hiding in the water to save their own lives, not able to communicate, not knowing if friends and family had survived, and in need. It is against this backdrop that it can be seen how important TFWCH was to those who had been affected who decided to utilise the page, as emotion-laden comments were made by users of the page in regards to what they had turned to it for. For example, in Chapter 8, there were numerous comments around the page being a 'godsend' or a 'lifeline' to those impacted.

In arguing that communities can extend beyond physical or geographical boundaries, it is worth noting that the consequences of a disaster can also extend

³¹¹ See Chapter 3, Psychological First Aid

³¹² See Chapter 6, The Emergency

³¹³ See Chapter 8, The Situation and Psychological State Creation

beyond the immediate impact zone (Norris et al., 2008). That is to say, it is not just those who have been directly impacted who may have needs for psychological support after a disaster event. This has long been recognised within emergency management. As Westbrook, Karlgaard, White, and Knapic (2012) argue,

... Each person within the community is considered an emergency management stakeholder. This helps us to understand that emergency management is not simply an agency, department or division, but rather, a field that involves the entire community. (p. 1)

It is likely that people help in order to feel better about what has happened. This provision of psychological first aid to oneself should not be denied, as a participant said in the study of volunteering post 9/11 by Steffen and Fothergill, “For me, donating money or talking about it isn’t enough” (p. 35). Similar findings were put forward by Sutton et al. (2008),

In addition to goals of reducing the problems of information dearth, some of our respondents reported a need to contribute, and by so doing, were better able to cope with the enormity of the situation... Thus sharing of information via text-based sharing sites can serve a dual purpose of providing much needed information to others through a psychologically beneficial practice of talking about traumatic events. (n.p.)

As seen in Chapter 6³¹⁴ people were generous and desperately wanted to help, travelling from a long way to provide assistance, giving items and money. Overwhelming numbers of people were following the page and utilising it to find ways to help. It has been argued that people volunteer for very different reasons; not solely altruistic ones, as seen in the different typologies of volunteers put forward by Fritz and Mathewson (1957). These researchers identified that volunteers are either *the returnees*, *the anxious*, *the helpers*, *the curious*, and *the exploiters*, and Kendra and Wachtendorf (2003) who identified two extra categories, of *the supporters* and *the mourners*. Thus the psychological needs of the wider community also need to be considered, as expressed by Lowe and Fothergill (2003),

³¹⁴ See Chapter 6, The Response

The spontaneous volunteers in this study engaged in helping behaviors both because of compelling altruistic needs to serve members of their community and compelling personal needs to serve themselves... We urge a reframing of spontaneous volunteers as both victims and community resources. It is clear that a balance needs to be found between the emotional needs of community residents who want to volunteer and the needs of official response agencies that may be hindered and overwhelmed by too many volunteers. (p. 308)

Thus it is believed that there was a need for psychological first aid not just to those who had been directly impacted, but also for those wishing to help. Research by Steffen and Lowe (2009) found that volunteers experienced positive mental health effects as they engaged in the social-psychological process of changing how they perceived the situation; and acting as agents involved in the recovery rather than paralysed victims.

It is worth reflecting on the high number of female fans following TFWCH, as explored in Chapter 5. These findings suggest that females and males have different informational and support needs during an emergency situation, and point to the possibility that females have a greater need for psychological first aid during emergency events. The gendered terrain of disasters is an area that needs further research. Thus the analyses in this thesis suggest that there were not only physical needs in the disaster, but psychological needs as well, which is usually the case.

Psychological first aid provision

In this next section, it will be explored whether TFWCH was able to provide psychological first aid.

Table 9.1 contains the elements of psychological first aid as detailed in the manual from Burke et al. (2013). The table also contains some sample key themes taken directly out of the analysis in Chapter 8.³¹⁵ A number of key themes emerged

³¹⁵ See Chapter 8, Results

that strongly suggest that psychological first aid had been provided to the users of the page.

Table 8.1. The goals of psychological first aid (Burke et al., 2013, p. 9) and relevant themes from Qualitative Thematic Analysis in Chapter 8

Element of PFA	Definition of element	Example of a key theme in analysis that is relevant
Promote safety	Remove or reduce exposure to harm, help people meet basic needs (e.g., food/water), help people gain urgent medical attention if needed, provide physical and emotional comfort, and provide simple, easy to understand information on how to get the basic needs met	<ul style="list-style-type: none"> • Provider of accurate, reliable information. • Verified/screened content, managed rumours • Delivered assistance rapidly • Enabled constant, rapid exchange and relay of current information
Promote calm	Stabilise people who are feeling overwhelmed or disoriented, provide an environment as much as possible that is removed from the stressful sights/sounds/smells of the disaster, listen if people wish to talk without forcing them to do so, remember and remind people there is no ‘right’ way to feel, be friendly/compassionate even if people are being difficult, offer accurate information about the disaster to help people understand what is happening, provide information on stress/coping, support people by reminding them help is on the way if they are fearful or worried	<ul style="list-style-type: none"> • The Administrator communicated clearly and concisely, and presented information accessibly • The Administrator played a peace keeping role • The Administrator grounded people • The Administrator acknowledged people’s efforts and thanked them • The page was a source of emotional support or general support, it was a comfort • The Administrator was personable, sensitive and compassionate • The Administrator remained calm, patient, and firm

Table 9.1. The goals of psychological first aid (Burke et al., 2013, p. 9) and relevant themes from Qualitative Thematic Analysis in Chapter 8 (continued)

Element of PFA	Definition of element	Example of a key theme in analysis that is relevant
Promote connect- edness	Help people to contact friends/loved ones, help families to stay together, keep children with parents/relatives as much as possible, help people to establish connections with support people, respect cultural/gender norms, provide information and direct people to useful resources and services and link people to these services	<ul style="list-style-type: none"> • Socially inclusive, welcoming, and not an unequal hierarchy • Connector and linker to other pages and other sources of information • Constantly available and present; dedicated
Promote self- efficacy	Engage people in meeting their own needs, assist people with decision making by helping them to problem solve and prioritise their problems	<ul style="list-style-type: none"> • An effective problem solver • Empowering, not controlling • Reduced feelings of helplessness • People felt heard
Promote hope	Convey expectancy that people will recover, be present and willing to help, reassure people that their feelings are normal	<ul style="list-style-type: none"> • Inspiring • Supportive, positive and encouraging

There is evidence in the other analyses in this thesis that TFWCH was able to provide psychological first aid, which will be briefly explored now.

It is known from the analysis in Chapter 6³¹⁶ that many people were coming to the page to try to find information about missing loved ones, and they were coming there in order to help them to “stop worrying.”

In Chapter 6,³¹⁷ where all the posts that the Administrator put up were analysed, it can be seen she was posting regularly not only in regards to physical health but mental health as well. For example, she was encouraging people to stay calm and to not assume the worst. She posted information about where to go for psychosocial support, such as through advertising the availability of social workers, and visits by trauma recovery specialists.

People stated in Chapter 6³¹⁸ that they found the page was a source of hope and inspiration, and that they felt it provided psychological support to them, bringing them comfort, as well as filling in the gaps in the response.

In Chapter 8³¹⁹ a theme is dedicated to how people felt that the page positively impacted them psychologically. In comments, respondents noted that the page made them feel better and more calm, and provided emotional support, and that they were making a difference. Respondents also commented that it felt good to be part of a supportive community.

Indeed it was not just the Administrator providing psychological first aid. The analysis in Chapter 7³²⁰ shows that of all the volunteering behaviours, individuals who had helped indicated that giving support or praise was the third most common volunteering behaviour engaged in. Indeed the first three most common

³¹⁶ See Chapter 6, Page Function: A Platform for Sharing Information

³¹⁷ See Chapter 6, Page Function: A Platform for Sharing Information

³¹⁸ See Chapter 6, The Response

³¹⁹ See Chapter 8, Psychological State Creation

³²⁰ See Chapter 7, Volunteering Activities: Q1

behaviours were all contributors to psychological first aid – giving a direct donation (and therefore presumably often connecting with someone in need), sharing information online, and offering support or praise.

People want to feel useful and to increase their sense of self-efficacy and connectedness to others in the wake of a disaster (Paton, Millar & Johnston, 2001). In Chapter 6³²¹ the analysis showed that people expressly said how they appreciated being able to volunteer and that it was rewarding, and this was mirrored in Chapter 8,³²² when respondents noted that they felt emotionally connected to what was going on and were desperate to help. People reported feeling good for helping, which reflects findings of the study looking at September 11 volunteers conducted by Lowe and Fothergill (2003),

The interview data suggest that spontaneous volunteers experienced increased feelings of interconnection, healing, and empowerment... The most significant outcomes for volunteers that we found in our study were the positive emotional experiences that the participants had when they were able to help other people. According to individuals who successfully helped, the experiences of volunteering were “empowering” and “healing” for them. They described feeling like authentic contributors to the response efforts. The acts of helping to transform the physical and emotional spaces of the disaster site changed their roles from passive victims of loss to active participants in the recovery of their community. (p. 303)

As per the goals of psychological first aid (Burke et al., 2013), it is important to promote self-efficacy so that people do not feel victimised or useless after a disaster event. Self-efficacy is akin to an individual-level manifestation of the concept of community competence in the Norris et al. (2008) model of resilience, whereby it is argued that people who can engage in meaningful actions themselves, and actually collaborate and achieve tasks, increases the community’s resilience (Norris et al., 2008).

³²¹ See Chapter 6, The Response

³²² See Chapter 8, Psychological State Creation

It is believed that TFWCH assisted with self-efficacy. As seen in Chapter 6,³²³ people could come forward to ask for items and support that they specifically needed (for example, they came to the page to get help with sourcing safety equipment, furniture, ice packs, truck drivers, and water containers). They were given avenues to help work on their own response and recovery. People did not have to 'sit back' and wait until help arrived. This can also be seen in Chapter 8³²⁴ too, whereby people were grateful that the page gave them a voice and a way to be heard that they felt they would not have otherwise had.

A key part of providing psychological first aid is that people feel connected to each other. Due to the functionality of social media, people were able to connect directly with one another. For example, in Chapter 6³²⁵ it was seen that people were noticing they were able to connect with other strangers to achieve goals, and through the network online, they could get items to people who needed them in a fast, efficient manner. Also in Chapter 6³²⁶ people were saying that they appreciated being able to connect and work with others, and make some friends in the process.

It is important to recognise, as was discussed with Research Question 2, that even just having access to good quality, relevant, timely and local information is useful when considering the provision of psychological first aid. It is argued that simply being able to provide people with information can help them to feel calm, hopeful, connected and safe, and able to enact change themselves thereby enhancing their self-efficacy. Thus, as seen in Chapter 6,³²⁷ having a constantly available Administrator providing an ongoing flow of information is useful in terms of providing psychological first aid.

³²³ See Chapter 6, Page Function: An Arena for Requesting Help

³²⁴ See Chapter 8, Positive Attributes and Psychological State Creation

³²⁵ See Chapter 6, The Response

³²⁶ See Chapter 6, The Response

³²⁷ See Chapter 6, Page Administration and Management

The results of Chapter 7³²⁸ support this argument that simply having access to high quality information is important for recovery. In this analysis bushfire-affected individuals were asked the main reasons for using TFWCH. The most important reason was for sourcing unofficial information, being able to share information online, sourcing information on the fire, getting general support, being able to share information offline, getting financial advice or assistance, and feeling connected. These were some of the key reasons for coming to TFWCH, and their relevance to psychological first aid is clear.

Being a part of an online emergent group can facilitate the healing process, as was found in the study Sutton et al. (2008).

In addition to goals of reducing the problems of information dearth, some of the respondents reported a need to contribute, and by so doing, were better able to cope with the enormity of the situation... Thus sharing of information via text-based sharing sites can serve a dual purpose of providing much needed information to others through a psychologically beneficial practice of talking about traumatic events. (n.p.)

While quantitatively exploring whether elements of psychological first aid had been delivered was not completed, it is believed that there is ample evidence that this type of first aid was delivered, and it is strongly recommend that future research does attempt to quantitatively measure the provision of psychological first aid by emergent groups and spontaneous volunteers.

Psychological first aid and resilience

Norris et al. (2008) include social support in their model of community resilience, differentiating between received support (actual receipt of help) and perceived support (the belief that help would be available should it be needed).

³²⁸ See Chapter 7, Page Utility

It is argued that online emergent groups can provide social support, but also psychological first aid. For this reason it is proposed that psychological first aid be considered in this, and other, models of community resilience, when considering how the community can provide and receive psychological assistance via emergent groups in the social media context.

As a result of these findings, it is argued in this thesis that psychological first aid can be delivered not just in the list of physical venues as expressed by Burke et al. (2013), such as evacuation hubs, hospitals, schools, businesses and community centres, but also in the online space of social media pages and groups such as TFWCH. Importantly, as psychological first aid is not about delivering help in a clinical context but is best delivered as a community-based process (Burke et al., 2013), the benefits of encouraging the community to congregate online can be seen.

Providing psychological first aid in the social media context means it can be provided remotely, instantly, passively or actively (people can simply read posts online passively or they can actively engage in conversations), and can reach people who may be impossible to reach otherwise during an emergency. Using the medium of social media also reduces the logistical issues that arise when too many helpers converge on a physical area with the desire to help. Thus, in response to Research Question 3, it is argued that the model of community resilience put forward by Norris et al. (2008) could include the provision of psychological first aid as an important contributor to community resilience.

Research Question 4

To recap, the fourth and final research question explores the functions and characteristics of the leader of the emergent group of interest in this study, and

whether leadership is adequately represented in Norris et al.'s model (2008). The way social media influences the development and use of community leadership and how leadership, in the social media context, influence the resources in Norris et al.'s model, is explored in this section.

It is important to consider the issue of leadership in the social media context. In the absence of effective leadership, it is reasonable to suggest that the potential benefits of online emergent groups and social media outlined above (that is, improved volunteering, the provision of psychological first aid and the positive impact on resilience) are unlikely to occur, or can be made worse. For example, ineffective leadership could result in volunteers focusing on donations that are not required, or could result in negative or psychologically damaging posts on a page not being moderated or removed. Social media is just a tool that can be used poorly or effectively. Thus exploring the elements and characteristics of 'successful' leadership is important if future online emergent groups are to positively impact responses and recoveries.

Syncretical leadership

In order to begin to understand the leadership given by the Administrator of the page, the model of syncretical leadership was chosen to compare against in this study. The syncretical model of leadership was first introduced in Chapter 3.³²⁹

Rather than attempting to establish comprehensively that this model is a good fit for the data included in the current study, this model will only be discussed briefly. This is because in this thesis it is proposed that there is evidence that this model could be supported, but future research needs to explicitly assess the elements

³²⁹ See Chapter 3, Leadership

in Behling and McFillen's model (1996), by, for example, administering questionnaires designed to assess this model specifically. It was only after the data analysis had commenced that it became clear that this model was useful. Furthermore, and most importantly, it is difficult to explore this model without taking an auto-ethnographic stance,³³⁰ an approach purposely avoided in this thesis, as detailed in Chapter 4,³³¹ so the model will only be briefly examined.

Regardless, it is argued that there is evidence in this analysis that the leader of the emergent group displayed the attributes of leader behaviour put forward by Behling and McFillen (1996), and that the key follower beliefs and follower response were also present. Some of these elements will be explored briefly now.

The key mediator in the model by Behling and McFillen (1996), and the one most strongly supported by other researchers (Behling & McFillen, 1996), is the presence of physic distress. The bushfire disaster was very distressing. In Chapter 2³³² and Chapter 5,³³³ people discussed the extent of the trauma and anxiety they were experiencing. Social media can serve to make the distress people are feeling during a crisis event more visible and over TFWCH and in response to the questionnaires, people were openly discussing how they felt.

In regards to the leader attribute of empathy,³³⁴ much of the content written by the Administrator was posted with the intention of making people feel better. For example, in Chapter 6³³⁵ there is evidence of posts that were trying to calm people down, offer them hope, and tell them that help was on the way. The next attribute

³³⁰ In the following section, there are some comments that explore the decision-making processes of the researcher. These useful insights are mentioned but are not explored in depth.

³³¹ See Chapter 4, The Current Project

³³² See Chapter 6, The Emergency

³³³ See Chapter 8, The Situation

³³⁴ It is argued that the leader attribute of empathy is closely tied with psychological first aid, which was discussed in the previous research question. Although not explored, it is likely that feeling of empathy towards affected individuals could contribute to why people, including the Administrator, attempted to provide psychological first aid over TFWCH.

³³⁵ See Chapter 6, Page Administration and Management

examined is how the leader dramatised the mission. In Chapter 6³³⁶ there is evidence that she was giving clear instructions, updates, and information about ways to help and actively encouraging and motivating people to do so. For example, regularly over the page the Administrator posted comprehensive summaries of what had been achieved that day, or what still needed to be attended to the following day. Even by creating the page initially, the Administrator demonstrated empathy and self-assurance, and dramatised the mission in the process.

The attribute of how the leader was enhancing her image and assuring her followers of her competency is explored now. As seen in Chapter 6³³⁷ the Administrator only posted a small number of posts containing information that portrayed her positively. In other words, although a number of posts appeared on the page by other users expressing gratitude, thanks or overt and emotion-laden praise for the Administrator, only a few of these were reposted over the main page of TFWCH. A decision could have been made to not post any of these image-enhancing posts, but the Administrator recognised that including a few of these type posts would likely assist with boosting the legitimacy and credibility of the page, as they showed the audience how the page and the actions of the Administrator were having a positive impact on members of the community.

A decision could also have been made to repost many of the posts containing information reflecting positively on the competency of the Administrator. However it was recognised that it was not necessary, appealing or appropriate to be engaging in excessive image enhancement, or self-promotion, at this time. In Chapter 8³³⁸ there are comments from the respondents of the questionnaires that suggest the Administrator had the balance right. It is argued that leaders of emergent groups

³³⁶ See Chapter 6, Page Administration and Management

³³⁷ See Chapter 6, Page Administration and Management

³³⁸ See Chapter 8, Administrator Attributes

benefit from some image-enhancement, but it is proposed that there is a critical mass that must not be surpassed, in order to avoid negative perceptions of the leader, such as were observed of the leaders of some other emergent groups.³³⁹

How the leader was able to give her followers plenty of opportunities for success is explored now. The Administrator focussed heavily on this, which is important, as volunteers who feel supported and valued are the best performing volunteers (CDEM, 2006). In the study of people who tried to volunteer with an official organisation about Black Saturday in 2009, over 63% of respondents felt either disappointed, unhappy, disheartened, frustrated, helpless, angry, annoyed or upset that they had not been used (Cottrell, 2012). Thus giving opportunities for people to help, as well as providing acknowledgement and reinforcement for their help, is crucial, as can be seen in the study by Cobb et al. (2014):

Altruism is certainly a factor for sustained membership. Making an impact is a related driver. Many interviewees offered anecdotes connecting their work to outcomes on the ground or expressed the frustration of wondering if their work was helpful, suggesting that knowledge of definitive impact is an important motivating factor in continued participation as a digital volunteer. (n.p.)

It is believed that in the current case study, followers of TFWCH were given ample opportunities to successfully contribute to the response and recovery. In Chapter 6³⁴⁰ examples were shared of how the Administrator was providing a variety of different means and ways to help, and giving guidance on how this help could be given. This helping is often denied through formal channels. In Chapter 6³⁴¹ evidence is also provided of the Administrator giving people feedback and positive praise and gratitude when positive outcomes were achieved, such as with the sourcing of particular items for the evacuation hubs.

³³⁹ See Chapter 8, Other Pages: Positives and Negatives

³⁴⁰ See Chapter 6, Page Administration and Management

³⁴¹ See Chapter 6, Page Administration and Management

Behling and McFillen (2006) proposed that if leaders display those particular attributes put forward in their model, then the follower beliefs of inspiration, awe and empowerment are generated. It is proposed that there is evidence in this thesis of those follower traits being present. Chapter 6³⁴² shows that people felt both inspired by the page, and also empowered, such as with the creation of multiple splinter groups, as people were able to use guidance from the page to then go and contribute to the response and recovery in their own way. Both Chapter 6³⁴³ and Chapter 8³⁴⁴ contain extensive feedback from the users of the page that suggests they felt inspired, motivated, and emboldened to act. For example, respondents indicated that they acted to help after the disaster as a direct result of being inspired by what other community members were achieving through contacts and collaboration over TFWCH.

Proposing that if leaders have those particular attributes and followers have those particular beliefs, the final section of Behling and McFillen's model (1996) suggests how followers then behave: they will give exceptionally high effort, an exceptionally high commitment, and a willingness to take risks. It is argued that there is ample evidence of these three outcomes in the current analysis. For example, people were willing to post their private phone numbers over the page, a large amount of volunteering took place, some of which was very expensive, both in terms of time and financial resources, and followers of the page continued to post and help for a long time after the immediate disaster had passed.

As mentioned, further research could explore the applicability of Behling and McFillen's model (1996) in the context of the leaders of online emergent groups

³⁴² See Chapter 6, The Response

³⁴³ See Chapter 6, The Response

³⁴⁴ See Chapter 8, Administrator Attributes

would be useful, as it is argued that the model is a promising representation of the leader attributes and follower behaviours expressed by those involved with TFWCH.

Apomediation

To continue the exploration into the key characteristics of leaders of social media driven emergent groups, the next topic explored is how these leaders deal with data and information flow in the online environment.

It is critical to have a skilled information broker administering a social media page. The importance of the latter derives from a need to accommodate how pertinent information can be lost against background data or noise. This introduces how signal-to-noise ratios need to be considered.

Signal-to-noise ratio is an engineering term that compares the level of a desired signal to the level of background noise. In the social media context, this refers to the level of high-quality, useful information compared to the level of irrelevant, unhelpful content (Acar & Muraki, 2011). Noise can be described as “raw and mostly unhelpful posts” (Hiltz & Plotnick, 2013, p. 824), and can also be described as “the fog of war that hinders credible and transparent engagement with the public” (Heighington, 2011, p. 3). Authenticating, validating and establishing the accuracy of information sourced from social media is a challenge (Huang et al., 2010).

In the online environment, it is argued that the Administrator must have excellent communication and information curation skills in order to be able to handle the analysis of which data are a signal and which are a noise; motivate the community to assist; and to embody the attributes put forward above by Behling and McFillen (1996). For example, an online leader will not be able to provide

opportunities for success to people wishing to help in a disaster if he or she has not been able to initially manage and sort the intelligence available in order to be able to find and present these opportunities to the followers on social media.

The analyses in this thesis have given ample evidence of the Administrator functioning as an information broker, engaging in what Eysenbach (2008) calls “downstream filtering,” where information is filtered later on in the information chain with bottom-up quality assurance mechanisms, such as corrective input from the users of the page, as opposed to top-down mechanisms in the traditional model. It was decided to graphically present below in Figure 9.3 how the Administrator was dealing with information.³⁴⁵

³⁴⁵ As detailed in Chapter 4, a detailed auto-ethnographic or reflective component is beyond the scope of this thesis. The figure below reflects information gleaned about the Administrator’s approach to running the page from the qualitative analysis of Chapter 6. The mediators of Trust, Judgement and Critical Thinking, and Communication Skills are put forward as potential elements; but these are not explored in detail.

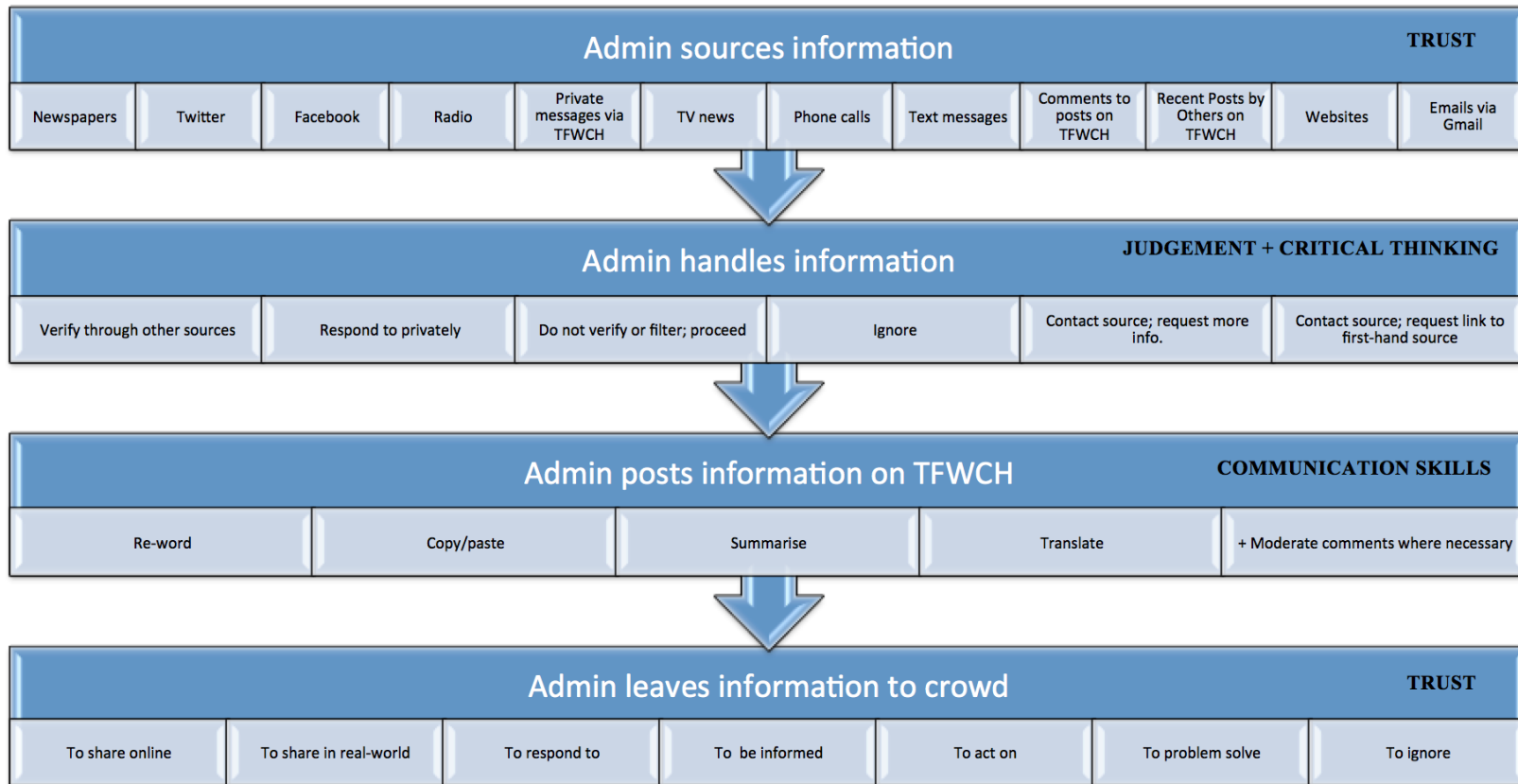


Figure 8.3. Apomediation of TFWCH: A timeline

As can be seen in Figure 9.3, the Administrator first sourced information from diverse sources. All sources were considered useful, and the key factor was trust: the Administrator had to use a range of critical thinking strategies (for example, assessing the credibility of the source by looking at their social media presence) to work out whom she could trust. While these strategies may seem unreliable, in a highly interconnected environment such as those in smaller communities, regional areas, or islands, these strategies can be effective, and it is not an unusual strategy, as expressed by Cobb et al. (2014),

Other interviewees discussed techniques for virtually verifying information, including considering something verified if they could find multiple distinct reports, glancing at the public profile of the person who posted the information to determine their reliability, and searching for other information about the poster's reliability (e.g. a LinkedIn profile). (n.p.)

The information was then handled, using judgement and critical thinking (for example, assessing if this information was brand new or had already been repeated multiple times and therefore more likely to be true) to work out the best way to handle that information. If the topic or issue were something important, the initial source would be contacted where possible. For the most part, as mentioned, it was believed that sources of information could be trusted so the information was posted, often with a request from the 'crowd' to verify whether that information was accurate or not.

The information would then be posted, with or without modification to improve understanding and communication. Then the users of the page were left in charge to handle that information however they wished to, and the Administrator would monitor the post and the topic at hand, moderating or supplying more information where needed.

This thesis emerged from a recognition that the research base on community-led online emergent groups is small. As was explored in Chapter 4, a decision was made to not engage in auto-ethnographic research, in order to increase the objectivity of this analysis. In the absence of a detailed auto-ethnographic analysis, based on the analysis in Chapter 6, two models (Figure 9.4 and Figure 9.5) have been created to summarise the roles of the Administrator, in order to contribute to the fledgling field researching how these groups operate.



Figure 8.4. Administrator role description: Priorities

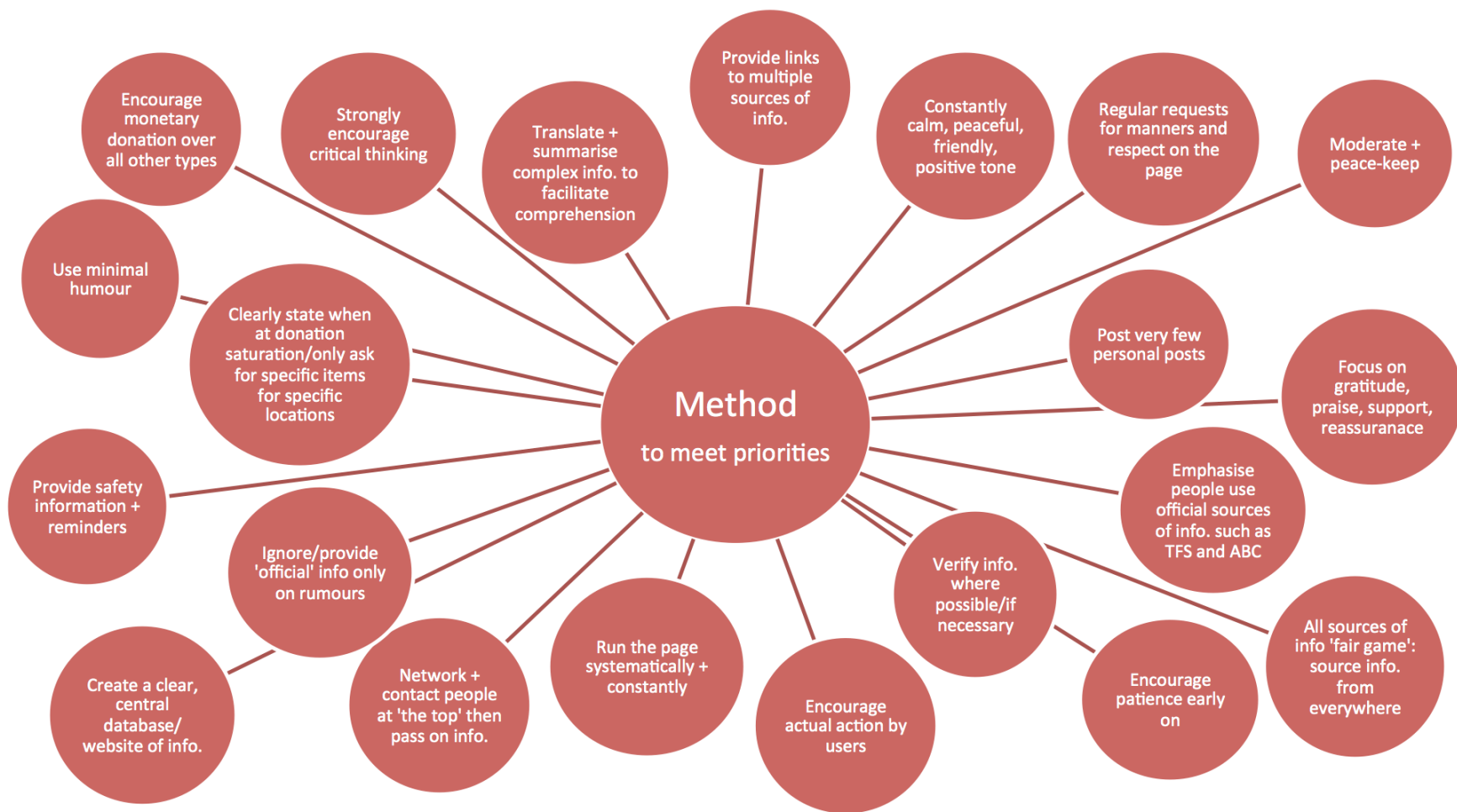


Figure 8.5. Administrator role description: Method to meet priorities

These models have been put forward as preliminary models to develop in future research in this area in order to explore further how the Administrators of online emergent groups engage in apomediation and provide leadership. These models are purposely not explored in detail here. These models are also not put forward as definitive summaries of the key requirements of Administrators. This is because the analysis leading to the creation of these models was based on both the themes that emerged, but also some subjective selection by the lead author. More case studies are needed to create recommendations for how Administrators of emergent groups operate during a crisis, but these models provide preliminary guidelines.

Legitimacy

The final component of leadership explored in this research question is how online leaders establish *legitimacy*. As mentioned in Chapter 3,³⁴⁶ Stallings and Quarantelli (1985) note that for offline emergent groups, being recognised for their efforts by other organisations is a major factor for these groups continuing to exist – as it provides visibility for them, and also serves to legitimate their functions. This is discussed by Voorhees (2007), after examining an offline emergent group that formed after the World Trade Centre attacks,

An organization must be able to establish legitimacy for it to command inputs, secure personnel or pursue other tasks that form stable organizations. Legitimacy must be both internal and external to the organization, with the organization being accepted both legally and socially. (p. 6)

There is evidence of the online group in this study establishing legitimacy. In the analysis in Chapter 6,³⁴⁷ it was apparent that other groups, such as the Police, State Government departments and politicians, were utilising the page by posting on

³⁴⁶ See Chapter 3, Legitimacy

³⁴⁷ See Chapter 6, Page Function: A Platform for Sharing Information

it or trying to connect with the Administrator. The Administrator nurtured these relationships and connections, and networked to establish legitimacy. The group was also getting recognition in media.³⁴⁸ Official groups were coming to TFWCH to use it as an amplifier.

Another example of the group establishing legitimacy is visible in the results of the analysis in Chapter 5.³⁴⁹ Many other websites (858 different sites) were referring to the TFWCH page, including authentic and official sites, such as the state-wide newspaper, *The Mercury*³⁵⁰ and the *HOFM* radio station website.³⁵¹

The Facebook page had a large following, as established in Chapter 5.³⁵² It is known that having lots of ‘likes’ on a page can contribute to legitimacy. ‘Notable page size’ was a key criteria for which pages were selected for analysis in the study of social media usage during the Virginia Tech massacre by Vieweg et al. (2008).

It is argued that establishing legitimacy is critical for emergent groups to be recognised and supported during a disaster, and there is evidence in the current analysis of TFWCH establishing legitimacy. Future research would benefit from exploring how official responders perceive online emergent groups; and how they decide, similar to offline emergent groups, who receives legitimacy and support and who does not.

³⁴⁸ The TFWCH page was mentioned on air on the ABC the night it was created. It can tentatively be suggested that this exposure was what originally gave the page legitimacy in the early stages. The results of this thesis suggest that this may not be the case however. In the analysis in Chapter 7, only 7% of the sample heard about the page from the ABC.

³⁴⁹ See Chapter 6, Page Likes

³⁵⁰ While it cannot be confirmed exactly why or for how long, it is known that the TFWCH Facebook page was being run as a ‘banner’ at the top of The Mercury website for approximately the first five days of the disaster.

³⁵¹ HOFM is one of the main commercial radio stations in Tasmania, and similarly to The Mercury, a social media plug-in of the TFWCH Facebook page was published on their site every day for about a week during the bushfires.

³⁵² See Chapter 4, Page Likes

Leadership and resilience

It is argued that for the model of community resilience put forward by Norris et al. (2008, see Figure 2.2) to be utilised in the social media context, the notion of leadership warrants greater representation. It has been argued in Research Questions 1, 2 and 3 that an online emergent group can facilitate high-quality volunteering, the provision of psychological first aid, and can contribute to resilience, by contributing to the four networked resources of economic development, information and communication, social capital and community competence, but it has been proposed in this section that in the social media context, none of these things can occur without appropriate leadership.

It is argued that the leader of an emergent online group is a critical factor in being the ‘activator.’ Without quality leadership, social media is just a tool; it is just a platform. It is only with (amongst other possible components not explored in this thesis) careful apomediation, syncretical leadership, the establishment of legitimacy and skilled leadership that an online page can be transformed into a viable vehicle through which the community can contribute to response and recovery, access assistance and psychological first aid, and become architects in their own resilience.

Leadership ties in closely with a number of the elements in Norris et al.’s model already, such as with the importance of information, as identified by Waugh and Streib (2006),

Both imagination and initiative—in other words, leadership—require good information. And a coordinated process for sharing it. And a willingness to use information—however imperfect or incomplete—to fuel action. (p. 135)

However, it is proposed that leadership becomes a *key* element of resilience when considering the Norris et al. model (2008) in the social media context, and that

it should be a central resource in the model, or a mediating, overarching component that affects each of the key resources in the model.

In the final chapter of this thesis, three recommendations to the field of emergency management will be presented. The strengths and limitations of this current project will then be discussed, followed by recommendations for future research in this field, and the concluding comments to this thesis.

9. Chapter 10 – General Discussion and Conclusions

Introduction

This thesis has documented and examined a case study of an online emergent group, *Tassie Fires - We Can Help*, that formed in response to a crisis event, the 2013 Tasmanian bushfires. Specifically, this thesis has explored the potential for an online emergent group to enhance community resilience.

A key theoretical finding of this thesis is that the model of community resilience put forward by Norris et al. (2008, see Figure 2.2) is supported, but when examining the model in the context of social media and online emergent groups, there are some additional elements that warrant inclusion. Specifically, leadership needs to be addressed more comprehensively in the model, and the positive impact of the provision of psychological first aid on resilience (and the ability for emergent groups to provide this) needs to be included.

Another theoretical finding is that there is evidence that online emergent groups can provide resources in a robust, rapid, and redundant way, three key factors acknowledged by Norris et al. (2008, see Figure 2.1) as critical for adaptation following a disaster. As this analysis has shown, many people were turning to social media in order to seek or provide those resources. Current thinking underestimates the power of social media to assist with the provision of resources, which is risky considering how vital they are for longer-term resilience, as per Norris et al.'s model (2008, see Figure 2.1).

The following model, Figure 10.1, is put forward as a preliminary theory for the key predictors and mediators required for an online emergent group to have functionality and efficacy. It is proposed that these key elements are required for

future emergent groups to be successful, and it is hoped that future research will analyse the application of this model. All the elements of this model have been explored and described in detail in this thesis; therefore Figure 10.1 is not an attempt to contain all the themes and topics examined in the preceding chapters. Figure 10.1 below simply draws a number of the more dominant ideas together.

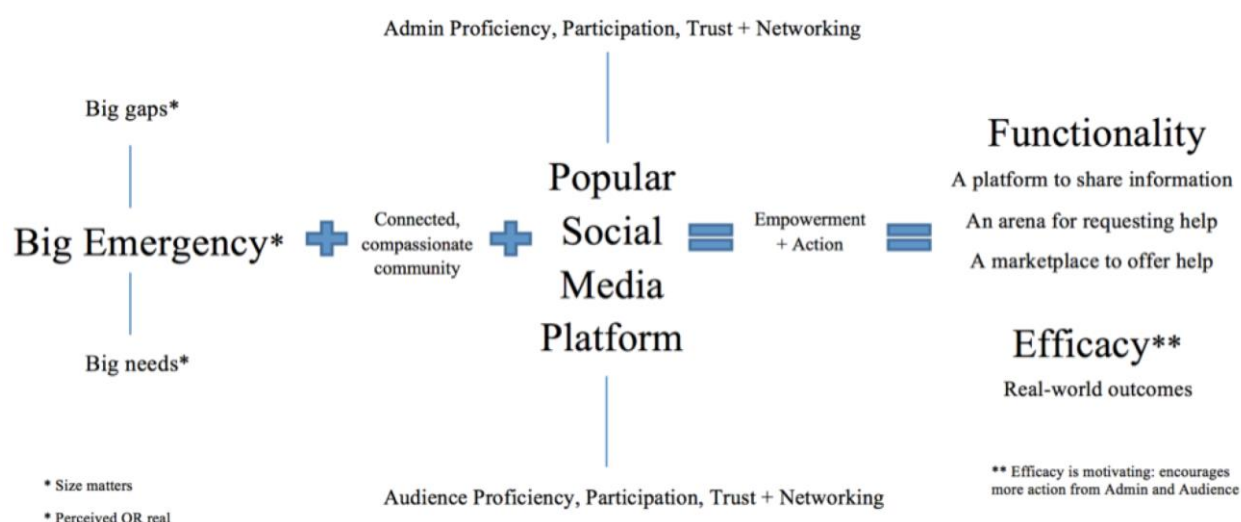


Figure 9.1. Predictors and mediators of online emergent group functionality and efficacy

Four recommendations will now be provided for those working in emergency management, based on the findings of this thesis. The strengths and limitations of this body of work will then be discussed, and future directions for the field will be examined. Final conclusions will then be made.

Recommendations for emergency management

This study has explored the functionality of an emergent group operating over social media during a disaster. While providing recommendations to emergency management agencies was not a goal of this thesis, three recommendations are

briefly put forward to those working within the emergency management sector.³⁵³

These are recommended because it is argued that there is the potential for these recommendations to positively impact on the response and recovery, and improve community resilience.

Operate on social media

Current planning around the broadcasting of disaster information for most official organisations is still built on the one-to-many, unidirectional, passive model of disseminating information (Sutton et al., 2008; Walaski, 2013). Research by Hughes et al. (2014) of the use of social media by official police and fire departments in the US after Hurricane Sandy found that only 39% of groups on Facebook actually responded to posts and comments on Facebook, and only 10% responded to them on Twitter. This suggests there is scope to improve how formal responders utilise social media.

Emergency management agencies typically resist the adoption of social media as a tool for gathering and communicating information during emergencies for a host of different reasons, such as failure to see information attained over social media as useful, fear of spreading misinformation, not understanding the benefits, or lack of resourcing to run social media accounts (Crawford, 2009; St. Denis et al., 2012; For-mukwai, 2010; Palen, Hiltz & Liu, 2007; Palen & Liu, 2007; Westbrook et al., 2012).

Regardless of this resistance and these barriers to the uptake of social media in an emergency, as each new disaster occurs, the use of wikis, blogs, Facebook,

³⁵³ While recommendations could also be made for those who create or are a part of emergent groups in a disaster, it is argued that this is nonsensical, as by their very definition, these groups are ad hoc, form in an unpredictable way, and evolve as the situation changes. Thus these leaders cannot, of course, be pre-selected and trained. That being said, there is perhaps scope for leaders of previous emergent groups to mentor or assist new emergent group leaders as they form, or to better educate the public ahead of time about the use of social media and spontaneous volunteering. These are interesting concepts worthy of further consideration.

Twitter and other forms of peer-to-peer communication is only growing amongst the community, as methods to supply important and often accurate information within the public sphere (Starbird & Palen, 2010; Sutton et al., 2008). For-mukwai (2010) argues that after initial hesitation, emergency managers and public safety authorities will all eventually embrace social media.

There are a few useful case studies for agencies considering how to utilise social media tools, such as the Queensland Police Media Service's groundbreaking usage of social media during major flooding in 2010 – 2011 (QPS, 2011; Larkin, 2009), and Jefferson County's effective usage of social media during major flooding in Colorado (St. Denis et al., 2014). It is recommended that these sorts of case studies are consulted as agencies develop their social media plans and policies.³⁵⁴

The American Red Cross (2012) has conducted some useful research in this area, surveying more than 2,000 people about the media they use during disasters. It found that social media was tied fourth with emergency apps as the most popular way for getting information on an emergency (after television, radio, and online news); and that 76% of the respondents believed that they should get help within 3 hours of posting a cry for help on the page or account of a formal responder.

Similarly, research by Taylor et al. (2012) found that 52% of respondents said that if they could not get through to an emergency dispatch centre, such as by calling Triple Zero,³⁵⁵ they would post a request for help on a response agency's Facebook page, and 18% would send a tweet to a response agency via Twitter. Certainly for the cohort in this current study, quality social media accounts such as TFWCH were considered extremely important.

³⁵⁴ While the current case study is useful for informing official bodies about the use of social media, it is important to note that how a community-led group and how a formal group uses social media are very different. For this reason official organisations need to consider how other official organisations are using the tools. More case studies are needed.

³⁵⁵ Triple Zero is the Australian emergency hotline, equivalent to 911 in the USA.

Thus it is critical for emergency management agencies to realise how important social media as a tool is becoming for the community, and to have a presence in this space. As commented by Bird et al. (2012), social media needs to be seen as another useful communication tool that increases the likelihood of reaching all segments of the community,

Social media will not replace traditional forms of hazard and risk communication, but rather, provides another useful tool that shares the responsibility of reducing risk, facilitates community involvement and empowers people to take action. (p. 32)

It is argued that not being in the social media space where the conversations between community members are happening is risky. It can be likened to professional responders sitting in an emergency operations control centre, and not answering the phone when it is ringing (C. Milligan, personal communication September 7, 2014). As Walaski (2013) notes: “It is no longer a matter of whether a company should utilize social media to communicate with audiences, but rather how and with what platforms”. (p. 40). This is mirrored by St. Denis et al. (2012).

We are now in a situation where we can no longer resist the prospects of social media in emergency management, but instead determine how best to make use of it; therefore, trials must be closely shepherded and adapted to each situation. (p. 9)

It is important for formal responders to recognise that they are no longer the only voice in the space anymore, as the role of information gatekeeping is disappearing due to new forms of media and information curation. This is a sentiment summed up well by Bruns and Highfield (2012), “The gates have multiplied beyond all control, and nobody is able to keep them any more” (p. 7).

Thus the first recommendation is that emergency management agencies and departments have a presence on social media. This presence needs to be geared towards two-way interaction with the general public (Bruns et al., 2012; St. Denis et

al., 2014). The social media policy developed should first and foremost be flexible (Hughes et al., 2014). Social media is of course not the only tool to be used for communication and information dissemination in a disaster, but it should be one tool of many (Bird et al., 2012; Merchant et al., 2011).

It is recommended that those working within emergency management agencies be on social media in order to be up-to-date with the community conversations that happen online. As Veil et al. (2011) notes,

With increasing frequency, the public turns to the Internet to learn details in a crisis. If crisis communicators choose to opt out of the online forum, the conversation on the crisis will continue through social media without the organization's voice being heard. (p. 118)

It is a way to connect and engage with the community, and monitor their concerns, questions and activities. It is a valuable tool for situational awareness, as information that can help with understanding the situation as it unfolds can be gleaned from tweets and posts in social media. It is also important for emergency management agencies to have an authoritative voice in the online space, in order to be able to counteract rumours, handle misinformation, and to avoid the presence of conflicting messages (Bruns et al., 2012; Veil et al., 2011; Walaski, 2013). It is also a way to establish connections and relationships with important community leaders within the online space, as expressed by Veil et al. (2011).

In the world of user-generated media, recognition and engagement with influential social media players is essential in reaching and influencing stakeholders, whom audience members deem trustworthy. (p. 116)

The use of social media can benefit organisations too, as they are able to push their own messages out without the gatekeeping or apomediation of information by the traditional media. Indeed, a comment by the information management team who used social media extensively in the Jefferson County floods was that they were operating as their own mass media (St. Denis et al., 2014). The Queensland Police

Service mirrored these sentiments, commenting after the floods that due to their usage of social media (Larkin, 2009, p. 37), "We were live Tweeting from briefings and press conferences, so the public was able to immediately access all the information, not just what the media chose to cover". In this way, organisations can avoid being misquoted or selectively quoted by the mass media (Alexander, 2013b).

This recommendation is made first and foremost with the goal of community resilience in mind. Considering how, as shown in this thesis, the use of social media can positively impact on a community's resilience (by, for example, helping people access information and communicate) it is recommended that official organisations contribute to this space. As Feeney (2012) comments:

Do you know someone who brags that they don't text, tweet or care about social media? I like to diplomatically tell these folks that their digital zipper is down; and it is not helping them look relevant.

The analysis in Chapter 5 revealed that females were more likely than males to be followers of the social media page. It is also known that males are more likely than females to work in emergency management. Similarly, it is known that younger people are more likely to use social media (a finding supported in this thesis), and that older people are more likely to hold key positions within emergency management. Thus there is likely a substantial disconnect between those who make decisions around the potential usage of social media (older individuals, males in particular) and those who find social media helpful in a disaster (younger individuals, females in particular). It is important to explore ways to educate key decision makers within emergency management about the potential benefits of social media in times of crisis.

Consider utilising a virtual operations support team (VOST)

As noted already, the management of social media accounts is a resource-heavy task. Indeed this is a primary reason why there is a reluctance to embrace this technology within emergency management. Due to the time and resourcing commitments required, it can be prohibitive to run a social media page effectively and adoption of the technology requires the allocation of precious time and personnel (Latonero & Shklovski, 2011). While it seems that more agencies are using social media in general, the uptake during crisis situations still remains low. The study by Hughes et al. (2014) found that during Hurricane Sandy, of 840 official emergency response departments, 37% had a social media account of some sort (such as Facebook or Twitter), but during or immediately after Hurricane Sandy, only 7% used Twitter and only 25% used Facebook.

It can be very challenging to cull, organise, verify and share the vast amount of information that comes in during a disaster (Goolsby, 2010; Heighington, 2011; Verma et al., 2011). Both disaster-impacted people and emergency managers can have a limited capacity to deal with the deluge of information, and people who work in this area often have to deal with a very stressful environment and a massive cognitive load as they monitor information coming in (Cobb et al., 2014; Latonero & Shklovski, 2011; Vieweg, 2010).³⁵⁶

For this reason, the emergence of *digital volunteers* to deal with the information overload created by social media is a growing phenomenon (Cobb et al.,

³⁵⁶ Both free and commercial tools are currently available to monitor social media, such as TweetGrid, TwitterFall, HootSuite, Bottlenose, Monitter, Radian6 and Signal. There are also ongoing communities of digital volunteers that have emerged and expanded, such as Ushahidi, CrisisMappers, the Standby Task Force, CrisisCommons, and Humanity Road. There are arguments for and against the efficacy and accuracy of the data-extraction techniques used by computers, as well as the ability for humans to effectively handle the data flow, which has lead researchers to argue that both technology and manpower are needed (Imran, Elbassuoni, Castillo, Diaz, & Meier, 2013). As Crawford (2009) points out: “it remains difficult to outsource the act of listening” (p. 531).

2014). These volunteers are people who have not been directly impacted by the disaster, who access social media to engage in volunteering behaviours such as filtering information and mapping (Starbird & Palen, 2011; St. Denis et al., 2012).

This remoteness is an advantage, as expressed by Palen et al. (2007),

The reach of the Internet expands opportunities for public involvement, where those geographically removed from the disaster—and therefore with the critical resources of time, money, electrical power, and working computers and telephones in hand—can offer assistance. (p. 57).

Taylor et al. (2012) describes this digital volunteering, as more than a third of the sample studied who were using community Facebook pages during a flood emergency was spending most of their time providing general information, answering questions, directing people to other information, or explaining what was happening. This propensity for the audience to answer questions was also noted by St. Denis et al. (2014) in their research of the Jefferson County's use of social media during the floods. They found that 35% of all the public posts on their Facebook page were answering questions, putting up useful information, or providing important community feedback to the Sheriff's department. In the case of TFWCH, the Administrator can be seen as a digital volunteer. Furthermore, an unofficial team of digital volunteers came forward, helping to manage the page (such as running a Twitter account or answering questions that were regularly coming to the page from community members).

There are similarities between this team of digital volunteers that helped with the TFWCH page and the services offered by global online teams, known as *virtual operations support teams* (VOST).³⁵⁷ Emergency manager Jeff Phillips created the VOST concept in 2011 when he recognised that overwhelming quantities of information made available on social media needed to be monitored and turned into

³⁵⁷ <http://vosg.us/history/>

actionable intelligence in a more effective way, but that technology alone could not do this task efficiently.

Members of a VOST operate as apomediators. Teams of remotely connected and well-trained ‘trusted agents’ digitally volunteer their time to process information, monitor social media, manage communication with the public, and complete any ‘missions’ they have been asked to complete from whichever official body has activated their VOST team.³⁵⁸ VOSTs have begun to spring up around the world as a way to handle the surge of useable information made available over social media during a crisis, and case studies of VOSTs are emerging in the literature (St. Denis, et al., 2012).

The importance of using a VOST is stressed so that usable intelligence can be gathered from social media, which in turn, can improve the official response, having a positive flow-on effect for community resilience.

Facilitate emergent groups

The analysis in Chapter 7³⁵⁹ showed that only a small percentage of this sample registered with the official volunteering body, Volunteering Tasmania and an even smaller percentage were utilised by this organisation. It has been established that volunteers become disillusioned and disengaged with the volunteering process if they are not used, or if it is not communicated to them that their services are not required, and this can result in negativity and criticism of responders (Cottrell, 2012). Barraket et al. (2013) noted that after a series of natural disasters in Queensland, people who contacted Volunteering Queensland were dissatisfied with

³⁵⁸ For example, a VOST may be tasked with establishing the current sentiment of the population towards the activities of the formal responding agencies or finding all information in a particular geo-location to do with the topic “fire” or “earthquake”.

³⁵⁹ See Chapter 7, Traditional Volunteering

official volunteering agencies, due to the perception of their lack of capacity to organise volunteers, which was in contrast to more unofficial volunteering channels.

Despite the key and important role that these broker agencies, particularly those linking volunteers to activities in local areas and those directly linking volunteers to on-site tasks, most of the 'stories' arising from this study involved respondents expressing considerable dissatisfaction in the way in which volunteering organisations are run and especially their perceived lack of capacity to manage people and organisational capability... By contrast the findings from this study suggest that the individual network brokers... seem to be more effective in making initial connection with potential volunteers, and through their closer relations/deeper knowledge of the person, are often able to convince them into expanded voluntary activity. (p. 36)

In regards to traditional volunteering, there is also a general trend towards shorter term commitments, and volunteering activities that take less time so while some are still following the traditional path of volunteering, many do not want to make a commitment to an agency (AGD & Australian Red Cross, 2010). It is therefore understandable that many people turn to immediate, independent, flexible ways to volunteer, such as joining an emergent group like TFWCH.

It is promising that there is a push to encourage people to become trained prior to an emergency situation occurring or to link spontaneous volunteers with official agencies once a disaster has struck,³⁶⁰ but there needs to be realism too: many volunteers will simply emerge at the time of a crisis and want to help directly and independently, without being affiliated through a formal body. As established in the previous chapter, a large reason for this may well be in order to self-provide psychological first aid. Thus it is recommended that official volunteering agencies have more robust and realistic plans and policies around the emergent groups that will form in a disaster, especially as the functionality of social media is enabling people to coordinate community responses in ways not seen before. The goal here

³⁶⁰ For example, Emergency Volunteering CREW is a volunteer referral service managed by Volunteering Queensland (<http://www.emergencyvolunteering.com.au/home/>).

should be to harness this extra help, rather than turning it away, especially because, as seen in this thesis, this help can significantly contribute to community resilience.

Emergent groups and spontaneous volunteers will appear, but this should not be viewed as a problem, as these groups and individuals can be a valuable resource when disasters overwhelm the capacity of formal responders to take action. As Quarantelli (1998) expresses, even fastidious planning does not enable a perfect response and recovery. Thus emergent volunteers should be embraced, as they will be needed. Emergent groups often have a negative reputation, but as this case study has shown, they can be a resource rather than a burden. This was recognised by the head of the Federal Emergency Management Agency in the USA (FEMA), who commented after Hurricane Katrina, “Our state and local emergency management experience has taught us that, in the event of a disaster, individuals and communities are not liabilities; rather, they are our greatest resources and the key to our success” (Fugate, 2011a, n.p.).

Starbird and Palen (2011) found that the spontaneous, remote volunteers operating successfully during the first week of the 2010 Haitian earthquake struggled to work with official responders when they swung into action:

Sarah: “...after that stage, it became clear that the larger NGOs were locking down streams of access for individuals. UN Cluster meetings were mandatory in order to obtain aid from the storage facilities. It became harder to help and our teams started to crumble due to feelings of powerlessness. It was a very frustrating time and most of my efforts turned more to shedding light on the broken system than trying to fight against it to get little done.” (p. 1078)

Thus it is recommended that these groups be supported and promoted by formal agencies and responders. The next question then, is how to do this.

Research conducted by Wachtendorf and Kendra (2004) post-September 11 provided five recommendations for coordination with volunteers in a disaster. They recommend that emergency managers establish and maintain partnerships with

organisations not typically involved in disaster responses (for example, local computer mapping experts at a university), and that they incorporate these sorts of groups into disaster response decision-making. The authors also urge emergency professionals to: set boundaries so that volunteers know what is within and what is beyond their scope of practice in a disaster; assign volunteers so that everyone is clear in the disaster zone about who is who and what skills they have; familiarise volunteers with existing response systems; and leverage any initiatives possible to maximise opportunities for connecting to the resources in the community.

In a similar way, Voorhees' (2007) analysis of emergent groups after September 11 gave a number of lessons for emergency managers. These recommendations are to promulgate a short select list of rules for the emergent group; identify and utilise the existing organising paradigm that the group has set up for themselves rather than trying to change it and manage the legitimacy given to the group, with an understanding that enhancing a group's legitimacy will enable it to function more effectively. Voorhees recommends that professional responders establish communications with emergent groups, and work with their leaders by giving them a liaison from within their own organisation. Voorhees also recommends that formal responders working with emergent groups understand that the group will be able to evolve and change, and they should be involved in that process in order to make the change happen in a useful direction that avoids duplication.

Both these studies focused on offline emergent groups rather than online ones, but the recommendations are still relevant in the social media context. A few other recommendations are relevant when considering online groups.

Firstly, the conversations of these groups should be monitored so that useful intelligence can be gathered, and misinformation and rumours can be addressed immediately. These pages should be seen as ‘mouth pieces’ for official agencies, as they can operate as amplifiers for official agencies (Taylor et al., 2012).

Administrators of these groups can be asked to broadcast and amplify information on their behalf. These groups can also be used by formal agencies as a means to crowdsource. Sutton et al. (2008) recommend that this process be active, rather than passive:

As a consequence of the growing utility of social media and the ubiquity of peer-to-peer communications, we believe that a change in disaster management models will come about in spite of any failure to formally recognize these widely distributed and often strikingly well-organized information activities. However, we argue that simply letting these inevitable changes take place would nevertheless result in needless delay, conflict and missteps. Instead, we call for efforts by public officials to actively consider how to align with peer-to-peer information exchange and to develop new conceptualizations of the information production and dissemination functions for disaster response (n.p.)

It is acknowledged that not all emergent groups should be supported, as some will be of little use. A benefit of social media is that the efficacy and popularity of these groups can be assessed directly simply by viewing the content on their pages or contacting their Administrators, which instantly helps official responders establish which emergent groups should be trusted and supported. Social media can assist with the identification of leaders, which is not always an easy task, as noted in the manual on community engagement put forward by the New Zealand Ministry of Civil Defence & Emergency Management (CDEM, 2010),

Leaders may be people who have an official position within the community, such as the chair of the local business association, the pastor of a church or the principal at the local school. However leaders may be a little harder to identify as they may simply be the “doers” in the community and have the ability to create the momentum needed for engagement activities. The best person to establish a partnership with will only be identified after getting to know the community well. (p. 14)

The recommendation that emergent groups should be embraced and facilitated comes from the recognition that command-control is not necessarily the best approach, and that shared responsibility needs to be wholeheartedly supported, as expressed by Tierney (2002) when studying how groups helped after September 11.

Effective responses to community crises often look messy from the outside, but that is part of what makes them effective. The failure to understand the emergence and complexity that is typical of major disasters often results in characterizations of disaster settings as chaotic and unorganized. Critical observers may express exasperation because "no one is in charge" - as if the activities of hundreds of organizations, thousands of small groups, and tens of thousands of individuals should be controlled in real-time by some single individual or overarching entity. These kinds of comments are often rooted in inappropriate militaristic command-and-control images of disaster management and in a mistrust of non-elites and non-experts. All such criticisms fail to appreciate the strengths of situationally-driven, problem-focused, locally-based, and improvisational response strategies like those observed in New York on September 11 and in the days that followed (n.p.)

Indeed research by Comfort, Ko, and Zagorecki (2004) support the suggestion that smaller groups working together are more effective than one overarching authority. Their research found that the timeline of recovery is shorter if there are more small sized jurisdictions working in an independent, self-organised way are more effective than one single centralised authority.

In summary then, it is recommended that formal agencies have an interactive online presence. They should optimise the intelligence available over social media and managing information overload in a crisis by using a VOST. It is also recommended that formal responders support and facilitate the useful emergent groups that form.

Strengths of the research

This is a research project born out of opportunity, which is the nature of most hazards research. As will be discussed below, the opportunities offered in this study

are almost unprecedented. Disasters are unpredictable and disruptive and researchers need to contend with a number of difficulties when it comes to collecting data. In this particular case, the researcher has been granted a level of access and a depth of data that is rare in studies of social media and disasters.

This research has three main strengths. First and foremost, it examines a number of novel topics that have not been looked at closely before. It therefore offers a valuable contribution to a number of fledgling fields. Secondly, the methodology used, including accessing social media archives, enabled insights not normally available. Thirdly, this thesis has theoretical implications for the study of resilience and practical implications for how resilience may be enhanced. Each of these strengths will be expanded upon now.

This thesis connects with a number of emerging research areas, including studies of social media. As noted earlier, there are significant gaps in the literature and much of the research surrounding social media use in disasters concentrates on Twitter. Considering the popularity of Facebook, and the tendency of people to use it during an emergency, any research that furthers understanding in this field is valuable.

As Acquisti and Gross (2006) write, Facebook is interesting to researchers for two main reasons. Firstly, it is a massive social phenomenon in and of itself, which makes it worth studying; but secondly, it offers a unique window of observation. Using social media data, this research has given insight into a number of community psychology processes not normally easily accessible, such as how the community is able to provide psychological first aid to those in need.

Through this research it has been possible to explore how disasters play out in real-time, by using direct Facebook archives from during a disaster, rather than

using only retrospective, self-report survey data, as groups like this leave detectable data in the digital domain which can then be examined (Starbird & Palen, 2013). This is clearly not possible in the offline world, as it is not possible to interview or survey during the active disaster response and recovery period and it would be impossible to capture the diverse groups affected and issues faced and that change over time.

While there is ample research exploring the behaviours of traditional volunteers, and volunteers who emerge during a disaster and volunteer for an official organisation, little is known about spontaneous volunteers who do not become affiliated with an organisation. This study has offered useful insights into the behaviours of individuals and groups that choose to volunteer independently of official agencies during a disaster, providing insight into the specific activities of these volunteers, and attempting to analyse what contributions may have been gained by the presence of such a group.

This is a useful case study for exploring how online emergent groups operate, what they focus on, why people use them, and how they are led by their Administrators. More work is desperately needed that is academic rather than just anecdotal descriptions of the use of Web 2.0 technologies seen in the popular press (Alexander, 2013b), and this is a valuable contribution.

The student researcher for this thesis is in a unique position. This case study presented an unprecedented opportunity to access information and insights not usually available. She was both the creator and Administrator of a social media initiative responding to an emergency, as well as being in a position to academically research the event. The level of insight and information offered by having the Administrator of the page also being the academic researcher is unusual, both at a

national and an international level. That being said, in this current thesis, an auto-ethnographic, reflective viewpoint was not utilised, in order to assist with the objectivity of the research. The principle strength of this situation is therefore that the Administrator had access to the data, and an understanding of the behind-the-scenes events or dynamics, which were occurring, which she has been able to report on in various parts of this thesis.

This thesis has theoretical implications for the study of resilience and practical implications for how it may be enhanced. While the relevance of community resilience characteristics has been identified in pre-disaster studies, their validity remains tentative until examined in disaster-affected populations during recovery. Conducting research on the latter is virtually impossible using normal research methods. However, because people actively communicate and relate to one another during disaster recovery using electronic communication and social media, it becomes possible to examine whether, how and to what extent community resilience can be developed and enacted via social media and how this phenomenon is influenced by the demands and issues people encounter over time.

This project examined the development of community resilience during the response to a hazard event using social media as the medium for community engagement and interaction, which is a novel approach to the study of community resilience. Norris et al.'s (2008) models of community resilience were examined, and the analyses contributed to these models by suggesting that when utilised in the social media context, other elements such as leadership and apomediation need to be considered. This thesis has contributed to the literature by revealing how online emergent groups, using social media, may be able to positively influence community

resilience, and it provides a useful bridge between studies of social media and studies of resilience in a way that has not been explored to date.

Limitations of the research

Four main limitations of this project will be explored. Firstly, the elements beyond the scope of this thesis, why they were excluded, and their impact, will be examined. Then methodological issues will be explored. A general warning about conclusions drawn from this thesis will be discussed. Finally, how the TFWCH compares to other case studies will be examined.

There are many topics and issues that were beyond the scope of this thesis. This project was a retrospective case study. Thus while it was not possible to ask certain questions of participants that would have added value to understanding the response and recovery processes, the findings of the current project provide a more robust framework for identifying questions that could be included in comparable future studies.

For example, the research would have benefited from more rigorous assessment of elements in the model of resilience put forward by Norris et al. (2008), or by administering the Follower Belief Questionnaire (Form II) and the Attributes of Leader Behaviour Questionnaire (Form II) to better assess whether Behling and McFillen's model of syncretical leadership (1996) fit the data. If the project had been formulated before the data had been gathered, more specific questions could have been asked of the participants that would have helped the understanding of how they had used social media in a way that increased resilience.

This research did not attempt to provide a 'truth' about what happened in the disaster, it simply reflects the lived experienced of those involved. This thus reflects

the objective of qualitative research in general. However, it is important to consider people who did *not* participate in the data collection (and hence in the analysis). From a practical and ethical perspective, particularly with regard to recruiting them at a time when they may be actively engaged in response activities, it was not possible or feasible to explore the experiences of traditional volunteers in detail in relation to the disaster. Nor, for the same reasons, was it possible to explore how volunteers not associated with TFWCH were helping during the event. Because this research focused on how social media-mediated interaction influenced resilience and its application during disaster response and recovery, people outside of social media were not surveyed.

Consistent with the goals of the study, the data inform exclusively about social media users (Sutton et al., 2008). Thus a good understanding of the lived experiences of those who are social media users was gained by this research, but nothing was learnt about those who do not use social media. It is practically and ethically problematic to attempt to collect data from people during disaster response. However, other opportunities emerge: social media data emerge from what those involved in the response and recovery space exchange on Facebook and other social media platforms. Hence, social media afford openings to collect (but not to direct the content of that data as would occur in a conventional interview) data at a time that precludes normal data collection and so gain insights into dynamic experiences as they unfold.

Notwithstanding, it would be useful to collect data (via interviews or questionnaires) from those who had used TFWCH as a resource, but also from those who had not. Hence, a limitation of the current study is that it only reflects the experiences of those individuals who were operating in the social media landscape

during the disaster. Little can be concluded about the experiences of those who were not using social media, or not using the TFWCH page in particular. For example it would have been useful to examine which sources of news content were of use to those who were not using online media during the disaster, as it is anticipated that their profile of news media resources would have been substantially different, including a greater reliance on traditional news media sources.

Conducting comparative analysis of those negotiating response and recovery from both social media and conventional perspectives would be interesting, particularly with regard to assessing the degree to which the resilience processes are developed and enacted. However, the practical and ethical issues of collecting data from non-social media using groups remains. One possibility would be to conduct this work at the earliest opportunity (for example, when hazardous circumstances have been stabilised) using techniques such as life-course interviewing methods to try and capture, retrospectively, experiences captured in situ from social media participants.

In addition to this, another limitation of the study is that the opinions and experiences of those employed in an official capacity, such as members of the police department, fire service, or local government, were not explored. This would have potentially exposed issues and ideas that were not brought up by the community examined in this project. Other authors have explored the use of social media by official resources (see St. Denis et al., 2014) but this was not a central goal of this project. This project focused on community perspectives. The inclusion of a comparative *community-agency* study (e.g, regarding the integration of community and agency communications around the same response and recovery issues and over time) presents considerable logistical and methodological challenges that were

beyond the scope of this study. Nevertheless, the inclusion of comments and experiences from authoritative agencies would be an important addition to future studies. Doing so would require future research to develop the logistical planning and methodological approaches required to collect and analyse data emerging from diverse groups, and thus varied perspectives, needs, goals and resources, and intergrate them into a coherent multi-level model of response and recovery.

A challenge for research going forward in this context relates to a need to shed further light on the complex and often contradictory ways official and unofficial groups use social media. There is scope for considerable more research using the current data set – for example, by analysing the conversations of those using the page in order to explore how people communicate and problem solve in real time during a disaster event, and this could identify points where community-agency interactions (e.g, pivotal points such as when a new outbreak occurs, when fire crosses containment lines, when resources need to be re-deployed etc.) might be more easily researched.

As this project was, first and foremost, about resilience, it would have been valuable to have completed a second, or even third, wave of data collection to cover different points in the post-disaster recovery. The results of this study explore the short-term impacts or benefits of an online emergent group in so far as the recovery of the community was concerned, but does not shed light on the longer term consequences of the fire event, and if those who had used social media had recovered well or poorly.³⁶¹

³⁶¹ It is valuable to gather data as close to a disaster event as possible; as subsequent events and knowledge can influence people's views and perceptions of what occurred.

As discussed in Chapter 4,³⁶² bias was eliminated as much as possible due to the research questions selected, the analyses strategies chosen which were inductive and data-driven, and the avoidance of an auto-ethnographic approach. Aside from a brief engagement with the literature immediately post-disaster to explore whether this research ought to be conducted and to then propose the research, the research literature was not consulted prior to commencing analysis. This was in order to avoid any biases or pre-conceived ideas dictating the direction of the analysis, and thereby narrowing the “analytical field of vision” (Braun & Clarke, 2006).

However, it is impossible to eliminate bias in a case study of this kind. This is a limitation to this study. Participant recruitment, given the objective of the study, comprised those who had used the social media page. Only these respondents were administered the questionnaire. Individuals who had started using the page and found it frustrating or not helpful would have likely stopped using the page prior to data being collected; and would not have seen the recruitment posts for participants. While a number of the participants gave negative or constructive comments about the running of the page, it is still feasible that only people who found the page useful to some extent provided their opinions.

Therefore, and in common with all research where there is less than a 100% participation and return rate, questions remain about, for example, the characteristics and roles of those who did not participate. Increasing the participant pool and following up those who dropped their social media use could be useful in terms of reducing bias or identifying potential sources of bias through having a wider range of respondents: for example, by including those who used the page, then stopped; those

³⁶² See Chapter 4, *Tassie Fires - We Can Help: An Anecdotal Introduction*

who had never used the page but had used other social media pages; and also those who used the page and continued using the page.

The discussion of potential bias in the project raises another important point. In the attempt to reduce bias, by, in particular, aiming to have as little auto-ethnography as possible, considerable data that could have been useful was not included in this study. There is a complex balance to preserve when examining case studies, whereby it is critical to be as objective as possible, while also recognising that the nature of the case study means that there are insights that are not normally available that ought to be capitalised on. As the primary researcher was so 'close' to the project, it was decided that eliminating bias should be the first goal, and that if this meant insights were lost, then this was an unfortunate but necessary outcome arising from the need to increase the objectivity in the analysis.

Throughout the examination of this case study, it was critical (and difficult) to maintain the idea that the TFWCH case study could not be objectively classified as either 'good' or 'bad' or perhaps more accurately 'successful' or 'unsuccessful'. As there are no other case studies with which to compare the current project to, and as it is almost impossible to establish if such a resource was 'successful' or not (this is an issue that applies in disaster response and recovery research – there are no criteria by which an event that, but definition, exceeds societal capacity to respond and which extends over months or years can be evaluated), care had to be taken throughout the analysis to refrain from making value judgments about the page and its worth. In a disaster situation, what is of use to one individual or family may not be so for another: the diversity of issues in a disaster is one of the key issues faced by official respondents.

This all being said, if this particular case had not been considered to bring some use to the disaster management field the study would not have been undertaken. It is worth re-stating that this is the only case study of its kind available. It is assumed and hoped that with the ubiquity of the Internet and social media during times of crisis, more emergent groups like this one may form, and will then be researched in the same way.

As with any nascent field of inquiry, care needs to be taken before drawing any conclusions. How much can be learnt from a particular case depends on how similar or different it is from other known cases in the field (Denzin & Lincoln, 2008). Thus all conclusions need to be provisional, as the research field on social media and crisis communications is in its early stages of evolution, with few other case studies with which to compare (Alexander, 2013b). Furthermore, even with careful research design, case study research relies heavily on subjective data, which must be taken into account (Denzin & Lincoln, 2008).

Finally, the importance of factoring in the context of a case study cannot be forgotten, as a case may or may not be typical of others, which has an impact on the generalisability of the research findings. This work did demonstrate that the social relationships and processes that emerge from social media use in a disaster response and recovery space can be modelled. The modified resilience model can be used to frame future research questions and thus create the potential to explore generalizability through future studies. This is consistent with the goals of qualitative research.

Despite the limitations outlined above, the results of this project remain useful and valid. They offer fresh insights into disaster risk reduction and provide plenty of avenues for further research. In the emerging field of social media studies,

this project provides a comprehensive case study of how online groups behave in an emergency situation.

Future research and directions

First and foremost, more research is needed across each of the main topics of interest in this thesis: the use of social media in disasters, the functionality and characteristics of online emergent groups, the behaviours of unaffiliated spontaneous volunteers, the characteristics and roles of Administrators of social media pages, the provision of psychological first aid by community members, and how community resilience can be enhanced.

Even with very recent research (Hughes et al., 2014) there are arguments that suggest that the use of social media in emergencies by emergency management agencies and the community alike is poorly understood and poorly researched. Extensive, international research into the use of social media during disasters is desperately needed (Bruns et al., 2012). It is interesting that there is relatively little data on the use of social media in emergencies, and that the entire research field is in such an early stage and in rapid evolution in regards to both the technological usage of social media and the social acceptance of it (Alexander, 2013b) – and yet, it is now being used in varying degrees around the world regardless of the lack of a robust scientific evidence base for its efficacy. Further to this point, from a methodological standpoint, it would be useful to explore the ways in which other researchers handle social media data as opposed to other types of data, such as interview data, in terms of coding. The development of guidelines on social media text coding would benefit all researchers involved in this new area of qualitative research.

More empirical rather than anecdotal research is needed. As noted by Ellison et al. (2007) in a study of Facebook and social capital, “Our empirical results contrast with the anecdotal evidence dominating the popular press” (p. 1164). Empirical data are needed in these fields to counter many of the popular but not necessarily accurate notions in the public domain about both social media and spontaneous volunteerism.

More reviews and analyses into how both official responders and the community are using social media in times of crisis are needed. In particular, substantially more research that is not just Twitter-based but is Facebook-centric is warranted, as Facebook has interesting capabilities to help form online communities that Twitter does not, and Facebook is more popular worldwide than Twitter (Pew Research Centre, 2013), including during disasters (Bird et al., 2012; Sutton et al., 2008).

It would be useful to have more international studies conducted, as many are USA-centric. Other platforms should also be examined. For example, in Taiwan, Twitter is popular but so is another microblogging service called Plurk (Huang et al., 2010). A broader understanding of social networking sites in general around the world is needed as there are undoubtedly cultural factors at play that have not yet been explored.

Conducting a node-based network theory analysis or social network theory analysis, to explore connections and linkages in the online community and how this might translate into the offline world would also be useful. The data studied in this project would lend themselves well to this sort of analysis, and there have been some interesting studies of a similar style conducted on Twitter (Bruns et al., 2012; Cheong & Cheong, 2011). It would be useful to see how connectivity plays out over

Facebook as there were some ‘key players’ or ‘key positive influencers’ in the social media cohort involved with TFWCH, and if community members and authorities can identify who these key influencers are, a greater reach and control out into the online and offline audience can be capitalised on.

Further research would benefit from examining the conversations that take place between members of the community over public Facebook pages during times of crisis, as this would shed light on a number of community processes during a disaster, such as the direct provision of social support, the understanding of risk information, and the building of community resilience. Comments to posts were not explored in this thesis at all but are potentially a valuable mine of real-time information.

Further research could also examine the social media posts that are the most engaged with by the population in order to establish the type and style of content most sought after by the community in times of distress. For example, people respond well to visual information such as maps, which have been used well in some disasters (De Longueville et al., 2009; St. Denis et al., 2014). Thus analysing posts that were most useful to people would be a good avenue of research. As Rutledge (2013) comments, “The real power of social media is not in the number of posts or Tweets but in user engagement measured by content spreadability” (n.p.). Thus it would be valuable to explore the content of posts and how ‘far’ particular posts travel in the social media sphere, and why.

No two disasters are the same and it is acknowledged that volunteering will be different for each different disasters. This could depend on size, as small-scale disasters may not instigate as much community involvement. For example, as Jaeger et al. (2007) comment, emergency response remains firmly the job of formal

responders, except in the direr of circumstances. It could also depend on how rapidly official responders arrive, and how prepared they are for the tasks at hand (Fritz & Mathewson, 1957).

The scale and type of volunteering during an emergency could also depend on the nature of the disaster. For example, after the 9/11 attacks, although few Americans were unmoved by the disaster (Beyerlein & Sikkink, 2008), 66% of households made a financial donation, but less than 10% attempted to help directly or indirectly by volunteering. The authors explain it,

It is not surprising that few people reported volunteering, given the difficulty of volunteering in this particular tragedy. For example, travel was restricted, volunteering on-site was discouraged early on, and the primary need was for people with very specialized skills. (p. 129)

In contrast, in the study of volunteering post the Oklahoma bombing in 1996, St. John and Fuchs (2002) found that 75% of the sample had volunteered in some way post the bombing. Thus more case studies are needed to explore how events play out depending on the situation and type of disaster at hand.

Conclusions

Disaster events are becoming more common, and more devastating to the community (Pantti et al., 2012). Official organisations can become overwhelmed during an emergency. Local citizens, motivated to help, often converge on an area as spontaneous volunteers, or form emergent groups in response to a community need. Other local citizens, who have been directly impacted by a disaster, seek help from both official responders and those around them.

Social media has emerged as a useful way to communicate during disasters (Huang et al., 2010; Yin et al., 2012), enabling collaborative communication to take place between interdependent response systems that spring up in a disaster (Comfort,

et al., 2004). People turn to social media to offer help, and to seek help. Social media also enables online emergent groups to form, which can then contribute to the response and recovery. It has been proposed in this thesis that online emergent groups can contribute in ways that offline emergent groups may not, in that this type of volunteering may ameliorate some of the problems associated with spontaneous volunteers and offline emergent groups.

Increasingly, striving for and supporting community resilience is becoming a critical issue within emergency management (UN, n.d.), which is why it was important to analyse if the activities of the general public operating as part of an emergent group online could potentially contribute to community resilience. Two models for exploring community resilience have been put forward by Norris et al. (2008) and were explored in this thesis.

The first model proposes that there will be improved resilience if resources (objects, conditions, characteristics and energies that are of value) are sufficiently *robust* (strong and with a low risk of deterioration), *redundant* (easily substitutable with other resources in the event of deterioration), or *rapid* (how quickly the resource can be mobilised and used) to buffer or counteract the effects of the stressor. The second model proposes that there are four primary sets of networked resources that Norris et al. (2008) argue underpin community resilience. These are information and communication, community competence, social capital, and economic development, and if these resources can be fulfilled, community resilience is enhanced.

These two models have not been examined in the social media context, nor applied to the behaviours of online emergent groups. It is argued that social media and the actions of emergent groups may have an impact on community resilience, as

defined in Norris et al.'s models (2008). The current analyses have shown that online emergent groups are able to deliver a range of resources in a rapid, robust and redundant way.

Thus it is proposed that these groups can contribute positively to community resilience. Furthermore, the findings suggest that a number of issues relating to spontaneous volunteers and offline emergent groups are ameliorated through a group operating online. For example, official agencies can monitor and communicate with these groups more effectively, and the giving of donations can be better controlled and managed.

These findings also suggest that there is a need for psychological first aid in an emergency situation, and that the online space offers a good medium through which psychological first aid can be provided. Psychological first aid should be considered for inclusion in Norris et al.'s model (2008).

The findings also suggest that how a page is managed is critical to the success of an online group. Leaders of online emergent groups need to be skilled information curators and able to network with other groups, in order to establish the group's legitimacy. It has been argued in this thesis that when Norris et al.'s (2008) models are applied to communities emerging online post-disaster, leadership needs to feature more prominently as a critical component in resilience.

It is therefore recommended that social media as a tool is embraced and harnessed by all sectors of the community involved in a disaster, and emergent groups are legitimated and supported, due to their ability to contribute significantly to community resilience after an emergency event.

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Table 1. Glossary of Facebook terms

Term	Definition
Joining Facebook	Representation on Facebook can happen in one of three ways: through a personal account, a group, or a page
Page	A Facebook page can be created for many purposes, such as to promote a business, organise a group, or create awareness about a cause. Pages enable users to promote their goods, services or topic of interest in a public domain. Pages are usually created by businesses or organisations as a way to broadcast their message. Some pages are created to be bi-directional in communication with the visitors to their page, many are not – they are simply used as advertising or broadcasting tools not intending to communicate with the users
Person	Users can create a personal Facebook profile to represent themselves on this social media platform, rather than to represent a business, group or cause
Group	Users with similar interests can create a ‘group’ page, to which they all have membership. Groups can be private and secret or open and public. Group Administrators can decide who is accepted into and who is rejected out of a group based on whichever pre-determined criteria they choose
Post	A post is a small piece of information typed up on Facebook by any users or managers of a page. “Post” is an umbrella term which covers status updates, photos, videos and comments
Comment	A user can leave a comment underneath a post. Comments can be made underneath the any post, depending on the security and accessibility settings set by the managers, or Administrators, of a page
Like	A user can “like” a Facebook page, and the user can like posts (such as status updates or photos), and the user can like comments. This is achieved by clicking the ‘like’ button under the relevant item. When a user likes a page, it means that updates from that page will now appear in their newsfeed, and they will be kept up to date about all activities on that page

Term	Definition
Unlike	A user can “unlike” a page after having liked it, or unlike a comment or a post. Users will unlike pages if they are finding the regularity or content of updates unappealing and no longer wish to receive the information from that page in their personal newsfeed
User	Any person who has a Facebook profile and is active on Facebook
Fan	A fan is someone who has liked a particular page
Follow	If a user has liked a particular page and therefore has become a fan, they are said to now be following the page
Friend	A user can make a friend request to another user on Facebook. If that request is accepted, the two Facebook users are said to be “friends”. As a result of this, anything that either user posts to their page can be visible to the other party, depending on the level of privacy settings put in place. Thus all mutual contacts on Facebook are known as ‘friends’.
Insights or Metrics	Insights or metrics are statistics provided by Facebook or other providers (such as Locowise) that impart information around how much the page is being used or seen, and by whom.
Admin/ Administrator	“Admin” is shorthand for Administrator. An Administrator is any person who is managing a page, and as part of this role, they have a range of rights. An Administrator might have full rights to the page in which case they can make substantial changes to the page, or they might have minimal clerical rights and duties
Administrator’s posts	When an Administrator creates a post, it appears on the main section of the Facebook page. Any fans who are following the page can then see this post when they view the page. The Administrator’s posts will also appear in their newsfeed
Recent Posts by Others	When a user of a page who is not an Administrator creates a post, it appears in a small section on the main page of the Facebook page. Other fans of the page will only know that another user has posted if they actively go to the Facebook page and look at the section “Recent Posts by Others”. Unlike posts by the Administrator, which are made visible on all users’ newsfeeds, Recent Posts by Others only appear on the page itself, and must be actively sought after by other users
Share	If a user appreciates a post, they can click a button to ‘share’ that post. This means that that particular post will then appear on the newsfeeds of anyone who is a ‘friend’ of theirs. In this way, posts have an extended reach out into Facebook with every extra share that is made

Term	Definition
Tag	A user can be ‘tagged’ in a photo, which means the photo has a link back to their personal page and vice versa. Users can also be tagged in other items such as in status updates
Status update	A status update is a short piece of information shared by a user or a page. It will then appear in the newsfeeds of any friends or fans. This is similar to how Twitter operates; as this is a microblogging feature that enables users to broadcast anything they may wish to say to their contacts on Facebook
Status attachments	A status can also include not just words but a photo, video, link or place check-in
Privacy settings	Users can elect to have varying degrees of privacy settings on their personal page. This affects which content they have posted is available to whom. The spectrum is from having all posts available to everyone, even if they are not ‘friends’ through to blocking and hiding specific content or specific people
Timeline	The timeline is the main page of a person or page’s account. It is also known historically as the Wall. It is a collection of all posts, comments, and check-ins that the person or page has collected or made over the page over time. Therefore it is a collection of all activity that has explicitly involved that particular person, and it can be seen as a record of his or her personal Facebook activity. It is like a virtual noticeboard where people can leave photos, messages or videos. A user’s timeline is also known as their profile
Ticker	The ticker is on the top right hand side of each page in a Facebook account. All activity appears on the ticker – it is a small, rapidly updating newsfeed of all activity happening by friends and pages connected to the user. If a user is on Facebook regularly they will see plenty of information running through the ticker. If they are not on Facebook as regularly, they will see a cherry-picked version of information coming through on their newsfeed
Newsfeed	The newsfeed is a less crowded and less complete version of the ticker. It tends to contain posts from the people whom are interacted with the most. All interactions that take place between users who are connected through Facebook friendship are published in the newsfeed, and this newsfeed and its contents are made available in real time to any other contacts of either party

Term	Definition
Private message	The private message function is Facebook's private email system. Messages sent through private message are not visible to anyone except for the message sender and the message receiver. These messages land in the user's Facebook inbox. If the email has come from a "friend", the message lands in main inbox section. If the email has come from a stranger, it lands in the 'Other' section of the inbox. Users have to remember to check this other section regularly
Notifications	Users receive updates if there has been activity on their page, such as if they have received a private message or have been tagged in a status update

Table 2. Timeline of research process, participant recruitment and data collection

2013	
January 4	The TFWCH Facebook page created at 10:14pm
February 4	Meeting with research company EMRS and a social media analyst to discuss potential development of a questionnaire to explore the functions and usage of TFWCH, in order to improve the response for future disasters
February 4	Request made by the Administrator on Facebook for someone with IT expertise to make contact in order to discuss downloading an archive of the page. IT expert made contact and began work on creating a useable archive
February 5 – 13	Ongoing development and testing of three questionnaires with EMRS. Questionnaire 1 (Q1) for individuals who had contributed during the response and recovery, Questionnaire 2 (Q2) for businesses and organisations who had contributed, and Questionnaire 3 (Q3) for bushfire affected individuals who had used TFWCH during the disaster
February 13	Questionnaire design completed and made live to the public over TFWCH Facebook page
February 13	Initial post requesting research participation created. Six more similar posts followed: February 13 at 2:15pm; February 15 at 10:16am; February 16 at 12:41pm; February 23 at 1:17pm; March 2 at 8:53am; March 10 at 3:15pm; June 18 at 5:29pm
February – March	Private messages requesting people to complete the surveys sent
July 5	Thinktank Social contacted via email in order to discuss and create social media analysis strategy
July 5	Second, complete dataset received from IT expert in Melbourne, who had utilised the APIs provided by Facebook to create an archive of all the posts from the page, complete with hyperlinks to each original post
July 8	Telephone conference with Thinktank Social to discuss and create analysis strategy. Director recommended Locowise as a social media software company that would be able to provide extensive statistics around TFWCH, such as gender and age of users, the size of the audience, which countries users were from, and how popular each post was

2013

August 6	Final questionnaires returned: Individual Contributors (Q1): August 5; Business/Organisation Contributors (Q2): August 6; Bushfire Affected Individuals (Q3): June 18
September 11	Due to time restrictions, the time period of analysis was elected to be 35 weeks, from January through September 2013. Using the NCapture function of NVivo, a complete encapture of the Facebook archives to date created – 39,039 posts and comments from January to September 11
October 1	Created an account with Locowise. Accessed insight data relating to usage, audience and reach of the page. Unable to access any data from January 4 and 5. Contacted Locowise
October 1	Final telephone conference with Thinktank Social to finalise analysis strategy
October 3	Locowise confirmed via email that no data could be extracted from the page prior to January 6
October 17	Questionnaire data prepared and cleaned, and the results of the three questionnaires inputted into an SPSS file. Analysis of quantitative data commenced
November 20	Having completed practice analyses, actual analysis of the four open-ended questions from each questionnaire underway
November 25	Commenced analysis of data made available through Locowise. Requested they run the scripts on the page again as there were some gaps in the data available
December 5	Locowise responded having run a number of scripts with filters to access the posts that had been missing. A complete data set was then created, but still the first few days of data were unavailable. As no further steps could be taken to access the missing data, all relevant data extracted from Locowise and tabulated, ready for interpretation
December	Regular emails with Thinktank Social to ensure Facebook metrics provided by Locowise being interpreted correctly

2014	
January 25 – February 17	Regular emails with Locowise to ensure the data provided is complete and is being interpreted correctly
February 14	Having completed practice analyses of the NVivo archives – specifically, all the posts created by the Administrator for the first year in the page’s life – actual analysis of the archives commenced
February 17	<p>Locowise made contact to announce that Facebook had made some changes, and that the entire data set of a page was now available to page administrators via the API, and that they could update the posts. Thus for the first time, complete Locowise insight data was now available for that first week of the page’s life. Thus all the results from December 5 were deleted, and the new results inputted into the thesis.</p> <p>As the data had to be re-analysed, analysis of Administrator’s posts also extended to cover a full year of posts and data. Second NCapture of the Facebook archives was completed on NVivo to ensure data for a full year in the life of the page was accessible</p>
March 17	Final data extracted from Locowise and tabulated
April onwards	Continued work on each Chapter, interpreting results, preparing the thesis

Table 3. Qualitative Thematic Analysis 1: Subordinate themes for overarching theme ‘the emergency’

Overarching theme: ‘the emergency’	
Key theme	
	<i>Subordinate theme</i>
It was a disaster with considerable loss	
	<i>It was an emergency, a disaster</i>
	<i>Events that were happening in the affected areas were devastating. There was massive damage sustained</i>
	<i>The fire was considered devastating enough that Tasmania passed the Federal Government tests to receive emergency disaster relief funding</i>
	<i>There were people and families who had lost a lot of their possessions, properties, fencing and outhouses, or who had lost absolutely everything: homes and businesses, animals, pets</i>
	<i>Houses were spared while houses next door were lost*</i>
	<i>Three different major fires were burning simultaneously and being mentioned on the page – Forcett, Bicheno and the Derwent Valley</i>
	<i>At the start of April 2013 the State Premier estimated the fires were going to cost the State Government \$45 million*</i>
	<i>People were under the impression that the dislocation of the Peninsula, with the power being down, places being cordoned off, access being limited, roads being blocked etc. was going to last an indefinite amount of time, if not a long time</i>
People’s lives were at risk; people were missing and unaccounted for over a long period; people were in danger	
	<i>Adults and children were hiding in the ocean to try to save their lives</i>
	<i>Much of the affected area was marked as a crime scene with access highly limited as many people were unaccounted for during the first week</i>
	<i>Some people who were stranded or missing needed medical care</i>

Overarching theme: 'the emergency'	
Key theme	
Subordinate theme	
	<i>People were missing and being searched for by friends, family and Tasmania Police</i>
	<i>People were not wearing proper shoes in the fire-affected areas. People were fighting the fires in thongs; they were walking around on burnt ground in inappropriate footwear and some people were getting burnt. Or their shoes melted</i>
	<i>People were still looking for missing people on January 7 and 8, 2013 – five days after the fires first started</i>
	<i>Even late on January 9, 2013, a long list of people was still unaccounted for. The page was still reminding people to register on this date*</i>
	<i>TFWCH was still receiving requests for information about missing people on January 19, 2013*</i>
	<i>A post reported on the death of a fire fighter on January 14, 2013*</i>
	<i>Evacuees had their names taken down on the boat when evacuating the fire-affected areas, or had not had their name uploaded to the Red Cross system yet, so people may not have heard from loved ones for more than 24 hours since the fires had begun</i>
	<i>On January 11, 2013 Tasmania Police announced that they had completed the search of all properties and had not found any human remains. They reported they did not have any grave concerns for anybody's welfare by that date. However, for a considerable period before this, a number of people were missing and unaccounted for*</i>
	<i>People in the affected areas were worried about smoke inhalation</i>
	<i>The Asthma Foundation felt that young people and the elderly were at risk with their asthma due to the seriousness of the current circumstances</i>
The fire created difficult circumstances: the fire was fierce	
	<i>It was smoky, dark and hard to land the boats that were attempting to deliver much-needed supplies in to the area</i>

Overarching theme: 'the emergency'	
Key theme	
Subordinate theme	
	<i>The fires were still very active and conditions were changing and unpredictable for many days after they first started. Even on January 9, 2013 and January 13, 2013, patches of fires were flaring up unpredictably*</i>
	<i>The land was burnt to a crisp right to the water's edge</i>
	<i>Aurora erected new power poles within the first few days of the emergency, that then burnt again when the wind changed direction</i>
	<i>Trees had fallen down on the roads</i>
Animals, pets and wildlife were affected	
	<i>There was stunned, wandering wildlife in the area. Wildlife was burnt, injured, and at risk of starvation</i>
	<i>People were releasing their horses to try to save them, or locking their pets inside. In some cases people were freeing their own pets or did not know how their animals had escaped</i>
	<i>A warning was released that snakes and reptiles may have come on to people's properties to escape the fires</i>
	<i>Farmers were desperately struggling with the lack of fencing and their stock escaping on the road</i>
	<i>Pets were stuck inside for days on end*</i>
	<i>By January 9, 2013, some livestock were being close to having to be euthanized for lack of food. The situation was even worse in some areas by January 17, 2013*</i>
	<i>The emergency vet clinic started operating from January 13, 2013 to January 21, 2013 and was very busy during this period; treating injured pets, wildlife and livestock*</i>
	<i>For a period on January 7, 2013, donated supplies of hay were running very low. It was a constant battle to try to feed starving livestock</i>

Overarching theme: ‘the emergency’
Key theme
<i>Subordinate theme</i>
Telecommunications were destroyed or intermittent: communication was impossible/difficult
<i>Phone towers were out of commission, landline phones were down, it was extremely hard to communicate, mobile phones were running flat or were completely flat with no way to recharge them</i>
<i>As a result of poor telecommunications, there was massive chaos and confusion in the affected areas</i>
<i>Evacuees had their names taken down on the boat when evacuating the fire-affected areas, or had not had their name uploaded to the Red Cross system yet, so people may not have heard from loved ones for more than 24 hours since the fires had begun</i>
<i>Some local information was trickling out here and there, and people were bringing it to the page</i>
<i>Phone contact was starting, although it was intermittent, but starting in some areas after the first two or three days after the fires first started</i>
<i>By late on January 7, 2013, only some mobile coverage had been restored to the Peninsula</i>
<i>Even late on January 8, 2013, many community pockets were still isolated and without contact</i>
<i>Telstra reported on January 11, 2013 that the fires affected just under 1,000 landline and internet services in addition to mobile coverage in the area*</i>
<i>By January 11, 2013, Telstra had repaired all the main infrastructure, but were still working on the cables connecting the exchanges to individual homes*</i>
<i>People were feeling very isolated. Some had had very little if any news for days</i>
<i>Some people were still feeling isolated and waiting for the Red Cross to door knock on January 14, 2013*</i>
The power supply was destroyed for more than 10 days

	Overarching theme: 'the emergency'
Key theme	
	<i>Subordinate theme</i>
	<i>Initially it was thought that power would be out for a week. The power was completely out on the entire Peninsula initially</i>
	<i>No power meant no functioning toilets</i>
	<i>Phone towers were out of commission, landline phones were down, it was extremely hard to communicate, mobile phones were running flat or were completely flat with no way to recharge them</i>
	<i>The service station in the area was not up and running initially as it too was without power. People desperately needed petrol for their generators so that they could have power, mainly so that they could use their water tanks to fight the fires. Water tanks need power to operate</i>
	<i>The service station in the area was not back up and running again until late on January 7, 2013</i>
	<i>On the evening of January 8, 2013 lots of people were still struggling with no power and no water</i>
	<i>On January 10, 2013, people were still without generators, without power, struggling along in random pockets on the peninsulas*</i>
	<i>Aurora announced on January 7, 2013 that people needed to expect to be out of power for several weeks due to the extent of the damage. They reported that 600 poles needed replacing as did scores of transformers and other equipment that had been lost</i>
	<i>As of the January 7, 2013, in the afternoon, about 3,000 homes had no power in the south of Tasmania</i>
	<i>By January 10, 2013, it seemed that while some parts of the Peninsula, such as higher up towards Dunalley, would receive power within a reasonable time frame, others would not for a long time. Therefore people in some parts of the affected area continued to request and look for access to generators*</i>
	<i>Aurora was working intensively, around the clock, to restore power as quickly as possible, which they did in an incredibly short space of time</i>
	<i>Aurora announced they would source and connect a large generator and start hooking people up from about January 12, 2013*</i>

Overarching theme: ‘the emergency’	
Key theme	
Subordinate theme	
	<i>Power was being restored slowly but surely. By the January 15, 2013 power was back on in some areas. This was much quicker than had been expected*</i>
	<i>People were under the impression that the dislocation of the Peninsula, with the power being down, places being cordoned off, access being limited, roads being blocked etc. was going to last an indefinite amount of time, if not a long time</i>
	<i>Houses were also without power due to other major fires in February 2013*</i>
Infrastructure, tourism and the local economy/ businesses were gravely affected; losses would have far-reaching consequences	
	<i>Local businesses were under threat – either from the fire threat, and/or loss of power, and/or loss of business/customers</i>
	<i>The fires happened on one of the most productive tourism weekends of the year. The fires had a devastating impact on tourism</i>
	<i>There were potentially substantial job losses in the area and further afield if local businesses were destroyed/incapacitated</i>
	<i>The further-reaching effects of some of these businesses being destroyed/incapacitated were serious: potential ripple effect on other families/businesses/economies</i>
	<i>A number of businesses without power were desperately searching for generators</i>
	<i>The local primary school in the south-east burnt down</i>
	<i>The local timber mill burnt down; costing approximately 35 local jobs</i>
	<i>The Port Arthur Historic site announced it was planning on re-opening again on January 14, 2013, meaning it had been shut for business for more than 10 days over the busiest period of the year*</i>
	<i>There was a real push towards late January, early February and beyond to encourage tourism back into the area, including the launch of a major state-government funded national tourism campaign – the “Tassie Comeback Tour”*</i>

Overarching theme: 'the emergency'	
Key theme	
Subordinate theme	
People were stranded or trapped; being evacuated; forced to leave behind possessions/vehicles	
<i>Many tourists and visitors were amongst those stranded behind the fire-front</i>	
<i>Many tourists and people were evacuated out by ferry but had to leave their cars and belongings behind which they then could not access</i>	
<i>People were worried about their rental cars. They did not want to leave their rental cars in the affected area</i>	
<i>Masses of people were stuck, stranded, misplaced or in the evacuation centres. Some people were stuck for days – even on January 9, 2013, people were still stuck behind the road blocks</i>	
<i>It was impossible to get access past road blocks</i>	
<i>People had been and were being evacuated</i>	
<i>Lots of people were getting evacuated; the ferries were under a huge amount of pressure and could not have moved people off the Peninsula any quicker</i>	
<i>The weather deteriorated rapidly in the first two days which impacted the boats' and ferries' ability to evacuate people</i>	
<i>Private citizens were taking boats out in order to help friends and family evacuate</i>	
<i>Private boats were evacuating strangers out of the affected areas</i>	
<i>People were staying overnight or longer in evacuation hubs. Many slept in their cars or on the ground in the first few days</i>	
<i>People were stranded, looking out on the water at the ferries going past, or even on the side of the road as traffic went past, waiting or hoping for help or assistance for themselves</i>	
People were low on supplies; particularly so in some areas	

	Overarching theme: 'the emergency'
Key theme	
	<i>Subordinate theme</i>
	<i>The service station in the affected area was not up and running initially as it too was without power. People desperately needed petrol for their generators so that they could have power, mainly so that they could use their water tanks to fight the fires. Water tanks need power to operate</i>
	<i>The service station in the area was not back up and running again until late on January 7, 2013</i>
	<i>On the evening of January 8, 2013 many people were still struggling with no power and no water</i>
	<i>On January 10, 2013, people were still without generators, without power, struggling along in random pockets on the Peninsulas*</i>
	<i>One of the main general stores in the affected area which was providing food to stranded people was out of supplies</i>
	<i>Some centres or places were receiving help and supplies, while others were not</i>
	<i>The boats were trying to target places that were being missed out or who were really struggling</i>
	<i>Many people were without basic supplies</i>
	<i>One of the main recovery hubs was inaccessible for many people as they did not have enough fuel to get there from other parts of the affected area</i>
	<i>Even people away from the fires themselves, but still behind the road blocks, were needing supplies, help, and attention as they too had been effectively cut off</i>
	<i>People were low on fuel. This continued for more than a week even when plenty of other donations were getting in</i>
	<i>A nursing home in the area was low on basic supplies</i>
	<i>Fire stations reported they were running out of water</i>

	Overarching theme: 'the emergency'
Key theme	
	<i>Subordinate theme</i>
	<i>For a period on January 7, 2013, donated supplies of hay were running very low. It was a constant battle to try to feed starving livestock</i>
	<i>People were trying to put supplies for specific people on the boats, asking if it were possible to get specific things to people in the affected area</i>
	<i>Volunteers were low on fuel too. Volunteer groups were struggling to keep paying for fuel in order to maintain their volunteering efforts*</i>
	<i>Urgent requests for the donation of goods were finally lessening late on the afternoon of January 10, 2013. The evacuation hub just out of the affected area were not collecting anything else after January 11, 2013 except for specific requests through the page*</i>
People were working relentlessly and with determination in response to the fires	
	<i>Local businesses in the area were contributing and working as hard as they could to help with the response effort</i>
	<i>A local hotel in Dunalley was feeding hundreds of people for the first few days of the emergency</i>
	<i>The Port Arthur Historic Site was operating as a massive refuge center for thousands of people</i>
	<i>Fire fighters were working 14-hour shifts for days on end</i>
	<i>Fire fighters were working hard; their faces were black</i>
	<i>Fire fighters were being flown in to Tasmania from elsewhere to assist with firefighting</i>
	<i>The emergency services were under immense pressure</i>
	<i>People were fighting the fires for many days, defending not only their homes but the homes of friends and neighbours</i>
	<i>It appeared many people managed to source their own accommodation and did not need the official evacuation beds</i>
	<i>People's strength, determination, mate-ship, camaraderie, and spirit in the affected areas was incredible</i>

Overarching theme: 'the emergency'	
Key theme	
Subordinate theme	
	<i>Vinnies were constantly requesting volunteers, and were constantly desperately in need of volunteers, to help sort through the donations. Even on January 13, 2013 they were desperately seeking more volunteers*</i>
	<i>Within the first three weeks after the fires, a number of charities had already spent hundreds and thousands of dollars helping fire affected individuals*</i>
	<i>Donated hay and feed drives were still happening in late February 2013*</i>
	<i>City Hall had been set up and seemed to be of some use. The Administrator did not have much to do with City Hall. The venue officially closed on January 11, 2013</i>
	<i>By January 8, 2013, the Government had already found housing for 300 misplaced people</i>
People were searching for as much information as possible	
	<i>People were asking for more information about the exact location of the fire, where it was, where it had been, where it was going, seeking to get that information in the most up to date way possible from the crowd through social media channels in relation to the fires in January</i>
	<i>People were asking for more information about the exact location of the fire, where it was, where it had been, where it was going, seeking to get that information in the most up to date way possible from the crowd through social media channels in relation to the fires in February*</i>
	<i>People were wanting information so that they could stop worrying</i>
	<i>People were asking for advice on how to get away from the fires, what exits to use, and roads to use</i>
	<i>Requests for fire-related information around a particular area from locals/people in the know. Seeking information on what was happening, what the situation was, what was going on in a particular spot – requests for any on-the-ground information</i>
	<i>People were seeking information and asking questions about multiple topics (see below)</i>

Overarching theme: 'the emergency'	
Key theme	
Subordinate theme	
People felt they were not getting enough information through the normal channels, or that it was contradictory/too slow. The official response was felt to be inadequate/too slow	
<i>People were asking for more information about issues related specifically to the fires themselves. They stipulated that they were asking because the TFS page was not giving enough, suitable or accurate information on their query</i>	
<i>People were saying that they could not seem to find much information elsewhere about the fires, the response, and the overall situation, or were receiving conflicting reports</i>	
<i>There was some confusion about where to take donated items; people were searching for more information and guidelines</i>	
<i>People commented that the missing person's hotline was not able to help in the search for a missing person</i>	
<i>There was confusion about if cricket grounds were going to be closed for cricket while evacuees were using the facilities</i>	
<i>People from far away were seeking help looking for loved ones, as 'normal' avenues were not working or unsuccessful</i>	
<i>People in the affected areas commenting that a different scenario was playing out in the affected areas than what the officials emergency responders were portraying, and that the community needed to keep bringing in supplies/generators/fuel etc.*</i>	
<i>Request for information about how to get on the convoy. People did not feel like they could get enough information on this topic</i>	
<i>Volunteering Tasmania had set up their online registry where people could register how they could help by January 9, 2013; almost a full week after the fires had started</i>	
<i>The first mention about access to ice in a media release by Tasmania Police was late on January 10, 2013. They may have released this information earlier but it did not get to TFWCH*</i>	
<i>On January 20, 2013, the government stated they had no firm plans for when the Red Cross Appeal money would start to be distributed to those who had been affected. The slowness with which the funding was distributed was very frustrating and confusing for many people*</i>	

Overarching theme: 'the emergency'	
Key theme	
Subordinate theme	
	<i>On January 24, 2013, the Red Cross Bushfire Appeal committee apologised for taking so long to distribute donated money. None had been donated yet at this stage*</i>
	<i>There was some evidence that government communication strategies were simply not as effective as they could or should be. People commented that they were struggling to find any information; even though DPAC replied by saying precisely where that information was*</i>
	<i>A post that suggests people could be much better informed about how emergency operations work within government. Quite a large amount of confusion by the general public into who is responsible during a disaster (that is, when local councils are in charge and when the state government gets involved). Greater education/accessible information by government is warranted*</i>
	<i>The government decided that a Bushfire Inquiry needed to happen. By April 9, 2013, the Inquiry Head had been appointed*</i>
	<i>Tasmania Police did not have a social media presence. Tasmania Police then had a Facebook page up and running on June 26, 2013*</i>
The period was traumatic: the fires had physical and psychological impacts. It was a highly emotional time	
	<i>People were under the impression that the dislocation of the Peninsula, with the power being down, places being cordoned off, access being limited, roads being blocked etc. was going to last an indefinite amount of time, if not a long time</i>
	<i>People stated that the uncertainty of not knowing what was going on or where to find people was very uncomfortable</i>
	<i>People were getting stressed, worried, anxious, frantic, fragile, looking for loved ones, wanting to help, waiting for news</i>
	<i>People with autistic family members were affected by the fires. There were at least 15 children with autism who had been affected</i>
	<i>Fire-affected individuals were stressed, sad, disappointed, heart broken</i>
	<i>The Asthma Foundation felt that young people and the elderly were at risk with their asthma due to the seriousness of the current circumstances</i>

	Overarching theme: 'the emergency'
Key theme	
	<i>Subordinate theme</i>
	<i>Even four to five days after the fires had begun, some people still did not know if their house was standing or not</i>
	<i>People were feeling very isolated. Some had had very little if any news for days</i>
	<i>People were stuck in the evacuation centres with nothing to do. They were very bored</i>
	<i>People were very unhappy in the affected areas. People were exhausted from fighting the fires</i>
	<i>People were worried about their rental cars. They did not want to leave their rental cars in the affected area</i>
	<i>People made mention of feeling hopeless or useless, wishing they could do more, or feeling compelled or moved to help out</i>
	<i>A psychologist recognised and acknowledged that events had triggered memories and trauma from the Port Arthur Massacre for some individuals*</i>
	<i>'Survivor guilt' started with people expressing guilt for not having lost possessions or property when others had*</i>
	<i>Two women expecting to give birth in the first few weeks of January 2013 both lost their homes</i>
	<i>By January 14, 2013, some of the volunteers were exhausted, and had to cease volunteer efforts and get back to 'real life'*</i>
	<i>Many people were requesting caravans so that they could continue living on their own property while rebuilding, as they did not wish or were not able to leave the area*</i>
	<i>Fire-affected people reported feeling overwhelmed and exhausted by late January. Many requests for help for individuals who had been affected by the fires came from friends and family asking on their behalf. Other people expressing feelings of being lost/at their wits end with not knowing how to even begin getting back on their feet/replacing lost items*</i>
	<i>Some people were not asking for help. The recognition that people often struggle to ask for help; won't ask for help or are embarrassed to do so</i>

	Overarching theme: 'the emergency'
Key theme	
	<i>Subordinate theme</i>
	Access in to the worst-hit area was nearly completely restricted initially. The opportunities to access/leave the affected areas increased towards the conclusion of the first week of the emergency
	<i>People were under the impression that the dislocation of the Peninsula, with the power being down, places being cordoned off, access being limited, roads being blocked etc. was going to last an indefinite amount of time, if not a long time</i>
	<i>Some groups were able to get road access into the area (both private groups and official groups assisting with the recovery such as government officials and staff of insurance companies and banks). Presumably all groups were only granted access with police escort but it is known that some individuals accessed the region using back roads</i>
	<i>Police and emergency services could provide police escort in and out of the affected area for essential services and deliveries</i>
	<i>All convoys were 'subject to road condition closures due to Fire, Aurora, DIER safety concerns and can be stopped at any stage'*</i>
	<i>Some organised and escorted convoys were heading in and heading out with Tasmania Police. The first convoy made its way into the affected area on January 8, 2013 at 6pm</i>
	<i>The second convoy went into the affected area with police escort at 8pm on January 8, 2013</i>
	<i>By January 9, 2013, only essential services were being allowed in and out on the convoys*</i>
	<i>On January 9, 2013, the roads were still not open to people going in to the affected areas, and only a couple of convoys were available for people wanting to leave the affected areas*</i>
	<i>Three more convoys were scheduled for January 10, 2013*</i>
	<i>By late on January 10, 2013 the first roadblock was moved further down towards the Peninsula, so people could access some of the fire-affected areas*</i>

	Overarching theme: 'the emergency'
Key theme	
	<i>Subordinate theme</i>
	<i>Tasmania Police's plan on January 10, 2013 was to open the road to locals the following day, fire conditions depending. At 8am on January 11, 2013 it was confirmed that residents, property owners and business owners would be allowed through that day*</i>
	<i>The government and Tasmania Police announced that they planned to open the roads completely on January 13, 2013, fire conditions depending*</i>
	<i>The roads eventually opened for general access to the public from 6pm on January 13, 2013*</i>
	<i>The Administrator's first trip to Dunalley was around January 15, 2013. All support/work up to this point had been conducted remotely*</i>
Recovery was difficult: the longer-term recovery was very hard for many people	
	<i>Many people were uninsured or not eligible for grants for fair/frustrating reasons. For example, one person had just finished building a house but the relevant Council had not signed off on it yet so he was not eligible for the re-building grant*</i>
	<i>Some people did not meet the criteria for government support, and were 'slipping through the cracks', for either the major January fires or the Molesworth fires where there was still extensive damage*</i>
	<i>Some local hobby farmers had 'fallen through the cracks' in regards to government funding and grants when the money was made available towards the end of January 2013*</i>
	<i>Some people were not asking for help. The recognition that people often struggle to ask for help; won't ask for help or are embarrassed to do so</i>
	<i>A number of things were still highly problematic even weeks after when people were allowed back in to the area – such as the presence of uncontrolled fires, high winds, unstable trees, building debris not secured, asbestos*</i>
	<i>Recognition and message out to the people by the Administrator or other people that the recovery was going to take a long time</i>

Overarching theme: ‘the emergency’	
Key theme	
Subordinate theme	
	<i>On January 24, 2013, the Red Cross Bushfire Appeal committee apologising for taking so long to distribute donated money. None had been donated yet at this stage*</i>
	<i>Many people were requesting caravans so that they could continue living on their own property while rebuilding, as they did not wish or were not able to leave the area*</i>
There were other natural disasters happening simultaneously in Tasmania and in other parts of Australia; it was a long and challenging bushfire season	
	<i>Other catastrophic events were happening in Australia towards the end of January, such as major fires in Victoria and major floods in QLD*</i>
	<i>Other fires were happening around Tasmania from mid-January onwards – a particularly bad fire started in the first week of February at Molesworth, and another in Franklin*</i>
	<i>There was another bad batch of fires in the middle of February, and another batch of Emergency Level warnings around February 18, 2013*</i>
	<i>Some posts soon started coming up in February in relation to other fires that had started*</i>
	<i>Road closures were happening with some of the other fires too*</i>
	<i>There were losses sustained in the Molesworth fire too – people with partially burnt houses, loss of fencing and outhouses, sheds, animal enclosures, cars, burnt land, dead wildlife, caravan, quad bikes, but no full homes were lost*</i>
	<i>Houses were also without power due to other major fires in February 2013*</i>
	<i>Fires were still at large and threatening major townships over the weekend around February 8, 2013, which prompted the TFS to issue an important press release warning people about the risks over the weekend*</i>
	<i>The February Molesworth fire did not escalate; the relevant major refuge center was shut down on February 8, 2013*</i>

	Overarching theme: ‘the emergency’
Key theme	
	<i>Subordinate theme</i>
	<i>Most fires returned to the level of “Advice” on the TFS site by February 10, 2013*</i>
	<i>Not as much on-the-ground information was trickling back to the Administrator for the Molesworth and other February fires*</i>
	<i>On the February 19, 2013 it rained, and for the first time in a long time there was not a single alert on the TFS website*</i>
	<i>There was another bad patch of total fire ban days and fires breaking out around mid-to-late March 2013. A string of TFS related posts went up on TFWCH around this time*</i>
	<i>There was another hot patch at the end of April 2013, with total fire bans. Around 10 fires were still burning at the end of April 2013*</i>
Note: asterisked themes are those that emerged after January 9, 2013	

Table 4. Qualitative Thematic Analysis 1: Subordinate themes for overarching theme ‘a platform for sharing information’

Overarching theme: ‘a platform for sharing information’
Key theme
Subordinate theme
The lack of a need for volunteers as expressed by official responders
<i>Sharing a media release by Volunteering Tasmania saying that emergency services did not need any more volunteers</i>
<i>Emergency relief organisations were apparently only using volunteers who had already been trained. Sharing media releases</i>
Evacuation hubs/fire refuge locations and news
<i>Sharing information about the refuge centres that had opened for the Molesworth fires*</i>
<i>Sharing information about which places were refuge centres, evacuation hubs and recovery sites</i>
Road closures and police alerts
<i>Sharing information about what roads were open and what roads were closed</i>
<i>Road closures were happening with some of the other fires too and this information was also being shared over the page*</i>
How to track down missing people/information on stranded people
<i>Sharing information for people about the emergency hotline number to call, or the Red Cross website to access, if looking for someone missing</i>
<i>Sharing information about the possibility that the ferries had stopped due to bad weather if people were still waiting to hear from loved ones</i>
<i>A reminder that people were only to ring the emergency hotline if it is actually an emergency</i>

Overarching theme: ‘a platform for sharing information’
Key theme
<i>Subordinate theme</i>
<i>Sharing information from Tasmania Police or Red Cross about a phone number or website for people to call to register that they were safe and sound and where they were</i>
<i>A suggestion from someone that people watch the television news to try get glimpses of people they might have been searching for – sharing this suggestion</i>
<i>Someone providing information via the page about a missing person – sharing this information</i>
Events/convoys/meetings for fire affected individuals in the area or people in fire-risk areas
<i>Sharing updated information about the convoys heading in and heading out of the area</i>
<i>Broadcasting information for people in the area about where they could go to meet the boats and collect donated goods; places they could drive to on the Peninsula to get help; or about community meetings or lunches</i>
<i>Informing people to watch for a green utility vehicle that was driving into the affected area if they were in need of ice</i>
<i>Sharing information about where community meetings were being held for some of the other fires around the State in February*</i>
Looting
<i>Post asking people to be on the lookout for potential looters in the area</i>
Pets, animals, livestock and wildlife
<i>Sharing details about where people could collect donated livestock food for their animals, or have it delivered to them</i>
<i>Sharing education about what to do if finding deceased wildlife that may be carrying offspring*</i>
The state of properties and infrastructure in the affected areas; the situation in the affected areas; information passed on from eye-witness accounts

Overarching theme: ‘a platform for sharing information’
Key theme
<i>Subordinate theme</i>
<i>Information provided from someone who was in the area/had access about the state of properties in the area, or specific fire information from that locale</i>
<i>Private citizen providing an update over the page about what they were currently doing to help; keeping everybody else in the loop about their activities, reporting back on what they have seen and what they know. Sharing this update</i>
<i>Posting a link to a video with a bird eye view (quad copter) or view from a car of Dunalley after the disaster</i>
Car rental issues
<i>Sharing information about the situation with car rental agreements and fines etc. for people who had had to abandon cars on the Peninsula when they evacuated</i>
The Bushfire Inquiry
<i>Post encouraging people to have their say in the state government Bushfire Inquiry by putting in a submission*</i>
<i>Post informing people that the Bushfire Inquiry results were available from October 15, 2013*</i>
Fundraisers
<i>Sharing fundraiser details to advertise to people where the fundraisers would be taking place in order to drum up more support and more attention</i>
<i>Sharing an update about how much money the Red Cross appeal or the HOFM Radio ‘Stuff the Bus’ appeal had accumulated</i>
<i>Promoting and suggesting different, low-cost fundraising options that people might like to get started on*</i>
<i>Some fundraisers stipulated who they were fundraising for specifically; such as Rotary, Lions, Red Cross, or private missions such as ‘the Dunalley community’ – sharing this information</i>

Overarching theme: 'a platform for sharing information'	
Key theme	
Subordinate theme	
	<i>Sharing information that the Mercury wanted to collect details of everyone's fundraisers to help promote them</i>
	<i>Reminding people fundraising has to be done officially, and showing them where to go to get that organised. Encouraging them to consider what fundraiser they might do. Helping them to get started in a big way or a small way</i>
Media/awareness-raising	
	<i>Sharing a news story about TFWCH; posting content to do with the media and TFWCH publicity. This includes the page/Administrator being discussed in Parliament</i>
	<i>Posting a link to a video made by a tourist who had been stranded the purpose of which was to raise awareness of what was happening down in Tasmania in order to drum up more support and more donations</i>
	<i>Educating people that TFWCH had a Twitter account from January 9, 2013*</i>
	<i>Promotion of TFWCH through signs and bumper stickers that someone had organised and donated – sharing that these stickers existed and people could collect one if they wished*</i>
	<i>Sharing a request for people to attend a thank you breakfast at a local pub which was going to be broadcast on TV in order to help raise awareness and boost tourism*</i>
	<i>Posting a link to a video of people volunteering to demonstrate what some volunteers were doing*</i>
	<i>Post 'advertising' the new Tasmania Police Facebook page and encouraging people to 'like' it*</i>
Advice from others	
	<i>Sharing advice from experts in the emergency management field or people with qualifications in disasters for how to handle the response and recovery</i>

Overarching theme: ‘a platform for sharing information’
Key theme
Subordinate theme
<i>Sharing anecdotes, stories or lessons from people who had experienced disasters before</i>
<i>Suggestions from people who had experience about what items should and should not be donated; about what items are needed; about how to go about the donating process – sharing this information</i>
Advertising/broadcasting a message for a business/group
<i>Business in the area were announcing that they were open, what they could offer, trying to communicate to their customers and the general public through this page when other channels were down – sharing this information over the page</i>
<i>Volunteering Tasmania using this opportunity to 'advertise' asking people to put their names down so they can be trained for future emergencies – sharing these media releases</i>
<i>Sharing detailed information about the list of businesses back up and operating in the area a week or so after the fires had hit in order to boost tourism*</i>
Physical and psychological health and support
<i>Advice from a psychologist posted on the page about mental health care in the immediate aftermath of the fires – sharing this post</i>
<i>Sharing official phone numbers and details about places and resources that were able to provide mental and psychological support</i>
<i>Posting a link to a video of Dunalley before the fires struck in order to bring people comfort</i>
<i>Local poet or ex-Tasmanian posting a poem on the page for hope and support – sharing the poetry</i>
<i>Sharing information for those who may need help sourcing medication and hardware for diabetes</i>
<i>Information being shared by the Asthma Foundation about dealing with smoke – passing this information on via the page</i>

Overarching theme: ‘a platform for sharing information’	
Key theme	
	<i>Subordinate theme</i>
	<i>Sharing tank water cleaning and safety information</i>
	<i>Sharing information about how to return safely to a damaged property</i>
	<i>Sharing the details of a place to go for physical support for youth and teenagers</i>
	<i>Sharing information on how people with hearing loss or impairment could access emergency information*</i>
	<i>Sharing information that a nurse, GP, psych and pharmacist were all available at the Dunalley Tasman Neighbourhood House*</i>
	<i>Sharing information that safety gear for the clean up was available from the Sorell Police Station as well as the caravan next to the pub*</i>
	<i>Post explaining the phone numbers people could call if they were feeling isolated or needed help on the Peninsula since the roads had re-opened*</i>
	<i>By January 10, 2013, a fully operational Salvation Army Recovery Centre had been set up at Carlton. Sharing information about what was at the Recovery Centre; who could access it; what was on offer; opening times etc.*</i>
	<i>Sharing information about recovery meetings that were being run in the affected areas related to psychological recovery (trauma psychologist); the recovery of children (Beyond Blue); and general recovery (Fire Foxes). These were all underway by April 2013*</i>
	<i>Sharing information about a motivational speaker coming down through St. Helen’s Hospital in August 2013 that was suggested as a good speaker to help with encouraging fire-affected individuals to keep persevering with their recovery*</i>
	<i>Sharing information about children's recovery: what is considered normal/abnormal/when to get screened/where to get screened*</i>
	<i>Sharing information about a controlled burn planned in May 2013 for an area close by the previously fire-affected areas in order to warn people about potential negative psychological reactions, and to encourage them to prepare themselves and their children*</i>
	<i>Sharing information about Rural Alive and Well support services available to affected men in the area*</i>

Overarching theme: ‘a platform for sharing information’
Key theme
<i>Subordinate theme</i>
Telecommunications and power information
<i>Advice and information shared about Telstra; getting phone access; when phone lines would be back up; getting internet access etc.</i>
<i>Sharing an update from Aurora about the power situation – updates about when it was likely to be restored</i>
<i>Sharing an update from Aurora about the discounts/waived fees/assistance that would be provided to people to help with the recovery and rebuild*</i>
<i>Sharing information from Aurora about houses without power due to other major fires in February *</i>
<i>Sharing information about Aurora that if fire affected people wanted the Relief Package they had to apply, it didn't work automatically*</i>
<i>Sharing information about power outages that had happened during firefighting during the fires in March*</i>
Financial assistance and entitlement
<i>Sharing an update from Aurora about the discounts/waived fees/assistance that would be provided to people to help with the recovery and rebuild*</i>
<i>Sharing information about Aurora that if fire affected people wanted the Relief Package they had to apply, it didn't work automatically*</i>
<i>Information being shared for bushfire affected people about what government financial assistance they are entitled to. Information from organisations and departments such as Centrelink, the State and Federal Governments, and the Bushfire Recovery Unit</i>
<i>Information being shared about Council fees being waived for applications concerning rebuilding, building approvals, application fees etc. Fees were to be waived and applications fast-tracked*</i>
<i>Post that passes on any general government information relating to financial assistance and entitlement</i>

Overarching theme: 'a platform for sharing information'	
Key theme	
Subordinate theme	
	<i>Sharing information that ATO had announced that tax bill extensions were being granted to land owners in the affected areas</i>
	<i>A range of companies sharing information about fees being waived in regards to internet and phone accounts – passing on this information over the page*</i>
	<i>Sharing information that volunteers should contact Telstra if their phone bills were excessive due to volunteering activities*</i>
	<i>Sharing news that the second round of Red Cross money was due to be distributed after February 14, 2013*</i>
	<i>Sharing news that the third round of Red Cross money was due to be distributed after March 4, 2013*</i>
	<i>Sharing news that the fourth round of Red Cross money was due to be distributed after May 17, 2013*</i>
	<i>Sharing information on how to get a refund from the remaining Registration months of lost/destroyed cars by applying at Service Tasmania*</i>
Insurance	
	<i>Sharing information about insurance: insurance company contact details; services being provided; how to get assistance etc.</i>
Banks	
	<i>Sharing information about banks - what services and support packages they were offering; locations in the affected areas; opening hours etc.</i>
Government/emergency information	
	<i>Post that passes on any general government information, including from Tasmania Police. Wide range of information shared</i>
	<i>Housing - an update to people saying that City Hall and the government were confident that they had enough accommodation available for those in need and did not need any more assistance from the general public</i>
	<i>Sharing a message from the Police that no help was currently needed</i>

Overarching theme: 'a platform for sharing information'	
Key theme	
Subordinate theme	
	<i>Sharing a message from the TFS that everything was under control and they did not need any help or donations or assistance, or suggesting better places where donations could go than fire stations</i>
	<i>Sharing information about housing and accommodation – sharing information about the Government outlining what was available and how to get it</i>
	<i>Sharing information from the Consumer Affairs site with useful information for people about tasks like replacing ID; documents such as tenancy rights; what to do about excessive prices/being taken advantage of by vendors etc.</i>
	<i>Sharing information from an official group saying they are not sure what they need or what is happening but will give more information soon. Good example of an official not trying to be all perfect or the gatekeeper of all information</i>
	<i>Announcing information, time lines and schedules from the Government about the official clean up*</i>
	<i>Sharing information - Total Fire Ban day declared by Tasmania Police</i>
	<i>Sharing information about the government detailing what they were going to be using Twitter for in order to continue to share information</i>
	<i>A suggestion from the TFS about how people could help, where they could go for more information on how to help – sharing this information</i>
	<i>Sharing information about grant money available for community projects in the area*</i>
	<i>Sharing the information that the government had decided that a Bushfire Inquiry needed to happen. By April 9, the Inquiry Head had been appointed*</i>
	<i>Sharing information about the Building Back Better guide that had been put together by the Government*</i>
	<i>Sharing information about the new Tasmanian Government Emergency website which would be up soon*</i>
	<i>Post encouraging people to use the services of the social workers available*</i>

Overarching theme: ‘a platform for sharing information’
Key theme
<i>Subordinate theme</i>
Thank you events/awards/meeting other volunteers
<i>Sharing information about a big thank you event being put on by the government*</i>
<i>Sharing information about community volunteering awards for people to nominate or apply*</i>
<i>Sharing information from the Administrator that she would be somewhere in particular at a fundraiser or dinner if other people were keen to meet up*</i>
<i>Sharing information about other community thank you events*</i>
Grants
<i>Sharing information about grant money available for community projects in the area*</i>
General donations and household items and clothing
<i>Sharing information about where fire-affected people could get help from Vinnies*</i>
<i>Sharing information about multiple drop-off points around the state. Giving options for people in the north or other non-Hobart areas of the state for how to help</i>
<i>Private boat owner communicating that they were setting off to deliver supplies. People were encouraged to make contact if they needed any specific items that could then be sourced and delivered. Sharing this information</i>
<i>Sharing information about the organising, contributing, arranging, reporting back on the delivery of bottled water to fire stations</i>
The Primary School rebuild
<i>Sharing information about the local primary school ‘Wish List’ so people knew what items to donate *</i>

Overarching theme: ‘a platform for sharing information’
Key theme
<i>Subordinate theme</i>
<i>Sharing the news that as early as January 8, 2013 it was announced the School was going to be rebuilt*</i>
Gardens, fencing and the environment
<i>Sharing information about the DTNH Garden Restoration Program for people who wanted to contribute or benefit from it*</i>
<i>Sharing some Blaze Aid statistics that demonstrate the extent of work they were doing*</i>
<i>Sharing Blaze Aid news. Blaze Aid reported back that volunteers had dropped to about 10 per day in April. At this point they mention that 15 properties still had not received any attention yet. They also advised the camp would be closing April 28, 2013*</i>
Housing and accommodation
<i>Sharing information by asking people if they were interested in a temporary housing complex to get in touch with Sorell Council*</i>
<i>Sharing information about housing and accommodation – sharing information about the Government outlining what was available and how to get it</i>
<i>Housing - an update to people saying that City Hall and the government were confident that they had enough accommodation available for those in need and did not need any more assistance from the general public</i>
Rebuilding/recovery
<i>Sharing information about the Building Back Better guide that had been put together by the Government*</i>
<i>Post encouraging people to use the services of the social workers available*</i>
<i>Post detailing a conference about community leaders renewing damaged spaces. Just to advertise it in case anyone was interested*</i>

Overarching theme: ‘a platform for sharing information’
Key theme
<i>Subordinate theme</i>
<i>Sharing information that The Mercury was collecting names and skills for people to help after the initial emergency to build a database. Encouragement for people to register</i>
<i>Encouraging tradesmen and apprentices to contact Master Builders Australia, who were wanting to get in contact with and assist tradesmen who had lost all their tools*</i>
The fires themselves
<i>Sharing information - linking to a specific fire alert page on the TFS website</i>
<i>The page was providing links to the TFS page about other fires as well *</i>
<i>A post about bushfire preparation and preparedness*</i>
Other simultaneous disasters
<i>Sharing information about fire fighter deaths in Australia/overseas and words of gratitude for their sacrifice*</i>
<i>Sharing information about other fires in Australia and how people can assist*</i>
Emergency website development
<i>Sharing information in May 2013 about the new TFWCH website which would be live soon*</i>
<i>Sharing information about the new Tasmanian Government Emergency website which would be live soon*</i>
<i>Sharing information that the new TFWCH website went live on June 18, 2013*</i>
<i>Post encouraging people to check out the new TFWCH website*</i>
<i>Sharing information that the new AlertTAS website would be live on December 4, 2013*</i>

	Overarching theme: ‘a platform for sharing information’
Key theme	
	<i>Subordinate theme</i>
	<i>Sharing information that the new AlertTAS website would be live on December 4, 2013*</i>
Ways to help and offers of help	
	<i>Based on the intelligence coming through, a suggestion made by the Administrator for how people could help</i>
	<i>Sharing information about multiple drop-off points around the state. Giving options for people in the north or other non-Hobart areas of the state for how to help</i>
	<i>Private citizen making suggestion on how other people could help based on what they were doing to help or intelligence that they had; something they had seen or heard. Sharing this suggestion</i>
	<i>Sharing specific requests for help with transport and delivery, donations, information and/or assistance [see following sections]</i>
	<i>Sharing specific offers of for help with transport and delivery, donations, information and/or assistance [see following sections]</i>
Note: asterisked themes are those that emerged after January 9, 2013	

Table 5. Qualitative Thematic Analysis 1: Subordinate themes for overarching theme ‘an arena for requesting help’

Overarching theme: ‘an arena for requesting help’
Key theme
Subordinate theme
Request for assistance with the transport and delivery of people
<i>Request for help, information, advice or assistance with moving some people and/or pets out of the affected area</i>
<i>Request for help or assistance – for someone to help with transporting people who had been evacuated and now needed help to get to different parts of Tasmania</i>
<i>Request for help – someone needing a boat ride into the affected area urgently</i>
<i>Request for help – a lift out of the affected area</i>
Request for assistance with the transport and delivery of livestock/pets/animals/animal-related items
<i>Request for help with livestock transport</i>
<i>Request for a truck driver who was capable of transporting flammable goods</i>
<i>Request for help for someone in the fire area – the delivery of supplies to help with an injured, burnt dog</i>
<i>Request for help for a truck driver, loader operator or someone who could bail hay who could help with either the moving and delivery of donated livestock feed, or any other larger donations</i>
<i>Request for the donation and delivery of food for wildlife in the affected areas</i>
<i>Request for animal food to be delivered into the affected areas – people who could help with transport needed</i>
<i>Request for someone to be on standby to help move animals if the Molesworth fire worsened*</i>

Overarching theme: ‘an arena for requesting help’	
Key theme	
Subordinate theme	
Request for assistance with the transport and delivery of donations and goods – via road/air/freight transport	
	<i>Request for help with the transportation of some donated hay, goods, food or other items: between two places behind the road blocks/within the fire-affected areas</i>
	<i>Request for help with the transportation of some donated hay, goods, food or other items: between two places outside of the affected areas</i>
	<i>Request for help with the transportation of some donated hay, goods, food or other items: from in front of the road blocks in to the fire-affected area</i>
	<i>Request for help with the transportation of some donated hay, goods, food or other items: from mainland Australia to Tasmania</i>
	<i>A general request for help for people to deliver food from Nubeena to elsewhere on the Peninsula if they had enough petrol to do so</i>
	<i>Request for help for the donation and delivery of ice to an area where people could not drive to the collection points</i>
	<i>Request for help – getting a set of keys to someone in the affected area from outside the road blocks*</i>
	<i>Transport or delivery. Donation collection and delivery already taking place if any other individuals wished to add to it</i>
Request for assistance with the transport and delivery of donations and goods – via sea transport	
	<i>Request for help – for owners with larger boats that can withstand bad weather to take their boats out and continue the deliveries to the Peninsula</i>
	<i>A request for someone to take their boat out and deliver supplies down to the Peninsula for a either a specific place in particular, or as part of the Cremorne Flotilla</i>
	<i>A request for people with boats to come and take them out in the Cremorne Flotilla, or on one of the following days</i>

Overarching theme: ‘an arena for requesting help’	
Key theme	
	<i>Subordinate theme</i>
	<i>Request for help – getting a set of keys to someone in the affected area from outside the road blocks*</i>
	<i>Transport or delivery. Donation collection and delivery already taking place if any other individuals wished to add to it</i>
Request for the donation of clothing/food/general necessities/household goods to specific locations	
	<i>Request for general donations to be taken to a specific place, such as Vinnies</i>
	<i>Request for a specific donation (see below) to be taken to a specific place, such as to a private collection point, jetty, specific boat, individual person, charity, fire station or recovery center</i>
	<i>Specific request for items relating to clothing, necessities, furniture or household goods (for example: wetsuits, surf boards, school uniforms, water drums, items for children, fishing rods, specific sized clothing, beds, linen, sunscreen, long sleeved tops, items for babies, craft items, hay, fresh food, non-perishable food, safety equipment, hats, shoes, dog food, mattresses, bunk beds, hobby items, treasure chests, cake tins, adult books, children’s books, books for the local primary school etc.) Requests made throughout life of Page</i>
	<i>Specific request for mechanical, technological or electrical items (for example: water tanks, fridges, freezers, TVs, small kitchen appliances, electric fry pans, electrical goods, wood heaters, carpentry tools, woodwork tools, building tools, sandwich makers, blenders, bread makers etc.) Requests made throughout life of page</i>
	<i>Request for someone to donate milk to a mobile coffee van bringing fresh coffee to volunteers/fire-affected individuals who had been evacuated</i>
	<i>Request for help at the City Hall evacuation hub – for an air pump to blow up mattresses</i>
	<i>Organising, contributing, arranging, reporting back on the delivery of bottled water to fire stations</i>
Request for the donation/loaning of items relating to the clean up/recovery	
	<i>Request for the use of a chainsaw for a team removing burnt trees/creating firewood*</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>Request for the donation of large water containers to take into the affected areas*</i>
<i>A way to help/requests for contributions: firewood requested for a firewood drive that was being organised</i>
Request for the donation/loaning of items relating to power-free refrigeration
<i>Request for the donation of ice packs to the Food Bank</i>
<i>Request for help for the donation and delivery of ice to an area where people were unable to drive to the collection points</i>
Request for the donation/loaning of items relating to information technology/communication
<i>Request for an old laptop to be donated to repair for a family*</i>
<i>Request for IT items for an IT professional who had lost everything*</i>
<i>Request for some power surge power boards to be donated in bulk for local residents*</i>
<i>Request for donations of old mobile phones as part of a general collection to be distributed to those who had lost theirs in the fires</i>
<i>Request for help - the loaning of a mobile phone for a few days for someone who had lost theirs in the fires</i>
Request for the donation/loaning of items relating to livestock/pets/animals
<i>Request for help for someone in the fire area – the delivery of supplies to help with an injured, burnt dog</i>
<i>Request for help with a specific hay donation that was urgently needed</i>
<i>Request for the donation or loaning of dog kennels and dog pens*</i>
<i>Request for food for wildlife in the affected areas</i>

Overarching theme: 'an arena for requesting help'	
Key theme	
	<i>Subordinate theme</i>
	<i>Request for the donation of sheets to make pouches for wildlife</i>
	<i>Request that people contribute to a collection or private, specific request for horse gear, horse equipment, halters etc.</i>
	<i>Request for the donation of drinking bowls and pots for wildlife</i>
	<i>Requests for livestock donations for the hay drive, to the Showgrounds, through the TFGA or to any of the other private livestock feed collection points</i>
	<i>Request for a shipping container to store donated hay into*</i>
	<i>Request for the donation of cages for pet ferrets*</i>
	<i>Request for the loaning or donation of drums for transporting pig food*</i>
	<i>Request for the donation of fuel or fuel vouchers to the volunteers in charge of the fodder drive, as well as for other volunteers*</i>
	<i>Request for the donation of a cockatoo cage*</i>
	<i>Request by the RSPCA that people were to contact them directly if they had any donations or supplies to offer</i>
	<i>A way to help/requests for contributions: people could offer help with livestock by contacting the TFGA, who were in need of fodder</i>
	<i>Request for any animal-related donations that could be made to go to the Showgrounds</i>
Request for the donation of items relating to fencing/gardening	
	<i>Request for the donation of fencing tools and gear to help with fencing. Requests made for either Blaze Aid or for private groups/citizens</i>
	<i>Request for general tools to help with repairs and the clean up from private groups/citizens</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>Request from Blaze Aid for commercial sized pots and pans to assist with the cooking to feed the volunteers*</i>
<i>Requests for donations to plant collections/garden projects – items such as compost, pots, mulch, plants etc.*</i>
Request for the donation/loaning of items relating to fundraising
<i>Request for items to be raffled, fundraised with or auctioned off at a fundraiser</i>
<i>Request for the loaning of port-a-loos for a fundraiser*</i>
<i>Request for the loaning of a BBQ for a fundraiser*</i>
<i>Request for a band to play at a fundraiser/get-together in Dunalley*</i>
Request for the donation of items relating to health
<i>A request for autism specific toys to be donated to Autism Tasmania</i>
<i>Request for an asbestos suits donation*</i>
<i>Request for the donation of suitable, safe clothing or PPE equipment for people helping the locals fight fires/clean up in the fire affected areas*</i>
Request for the donation/loaning of items relating to generators and fuel
<i>Request for the donation or loaning of a generator, fuel or batteries for a private citizen</i>
<i>Request for the donation or loaning of a generator, fuel or batteries to a business</i>
Request for the donation/loaning of items relating to transport

Overarching theme: ‘an arena for requesting help’	
Key theme	
Subordinate theme	
	<i>Request for help with the loaning of a trailer to take fuel and a generator to a hotel in the fire-affected area</i>
Request for the donation/loaning of items relating to storage	
	<i>Request for the donation of good-quality cardboard and removal boxes to Vinnies at the Showgrounds who were in need</i>
	<i>Request for the donation of boxes or containers for packing up donated food</i>
	<i>Request for the loaning of ten removalist trolleys to Vinnies at the Showgrounds*</i>
	<i>Request for shipping container loaning or donation, or cheap purchase, for fire-affected individuals*</i>
Request for the donation of specific and targeted items for children	
	<i>A registry to gather gifts for children was created on January 11, 2013, which matched specific requests for specific children with a contribution from a self-nominated donor*</i>
Request for information relating to tourism	
	<i>Request for help – tourism suggestions for a group visiting the area*</i>
Request for information relating to donations	
	<i>Request for assistance with knowing where to take a specific donation</i>
	<i>Request for information about where to send a handmade quilt or rug for someone who had been affected by the fires*</i>
	<i>People seeking advice on which places to donate cash that would help wildlife *</i>
	<i>Asking for advice on which drop-off points had been created in the northern and other parts of the state or country to spread the word for others who were interested in helping</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>Request for assistance with sourcing some feedback on the donation of a car: if the transaction had all gone well and if the recipients were ‘happy’*</i>
Request for information relating to the fires
<i>People were asking for advice on how to get away from the fires, what exits to use, and roads to use</i>
<i>Requests for fire-related information around a particular area from locals/people in the know. Seeking information on what was happening, what the situation was, what was going on in a particular spot – requests for any on-the-ground information</i>
<i>Request for information – trying to find out rules around the fire bans; if inside fires could be safely lit*</i>
Request for information relating to livestock/pets/animals
<i>Request for information about the whereabouts and safety of specific horses in the fire-affected area</i>
<i>Request for help with locating a stranded pet or a lost/missing pet</i>
<i>Request for information about who was providing emergency vet services in the area or outside of the affected area</i>
<i>Request for suggestions of other places to buy goods that used to be bought from the affected areas, and were now urgently needed to be sourced from elsewhere*</i>
<i>Someone who had found a pet requesting information about who it might belong to – sharing this request</i>
Request for information relating to affected property
<i>Individuals requesting for local information about if a house, property, premise or building had been damaged</i>
Request for information relating to missing/un-contactable people

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>People seeking advice, tips or information about someone they were looking for who was missing</i>
<i>An attempt to connect with someone specific using other people’s connections on the TFWCH page – by either requesting a contact number, or having a message passed on, on their behalf</i>
<i>Request for information about some of the firefighters who were known to have been working in the affected areas and who were hard to contact</i>
Request for information relating to the transport of medication to someone stranded
<i>Request for information and advice on how to get medication to someone in the fire affected area</i>
Request for information relating to transport between collection points
<i>Request for information about if anyone had organised for the transportation of donated goods from different areas in Tasmania down to the affected areas</i>
Request for information relating to the sourcing of fuel
<i>Request for information about where petrol could be sourced in the fire-affected areas</i>
Request for information relating to convoys
<i>Request for information about how to get on a convoy. People did not feel like they could get enough information on this topic</i>
Request for information relating to boats and deliveries
<i>Request for information about the safety and whereabouts of one of the boats that was transporting a large gas donation</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>A request for information about whether the boats were helping; if there were enough of them; if they might need backup. Private citizen considering getting their boat out to help and wanting more information before doing so</i>
Request for information and assistance relating to the return of loaned items
<i>Request for help with the return of a loaned generator*</i>
<i>Request for information – donor looking for some water containers that were loaned*</i>
Request for information relating to the resuming of services
<i>Request for information about when a local market near the fire-affected area would likely be back up and running again post-fires*</i>
<i>Request for information about if a local primary school in a fire-risk area was open or closed*</i>
Request for information relating to key database content/record-keeping
<i>Request for help with information - compiling a list of all the fundraisers that had taken place in order to promote them, and to have a record on the new TFWCH website</i>
<i>Request for help - compiling a list of businesses who had been affected in the area in order to promote them, and to put on the TFWCH new website</i>
Request for assistance with livestock/pets/animals
<i>Request for help for an individual on the ground in Murdunna to go and check on two dogs stuck in a house</i>
<i>Request for help feeding some dogs that had been affected by the fires that were being looked after</i>
<i>Request for help with temporary accommodation for animals, livestock or pets</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>Request for help with horse agistement</i>
<i>Request for help with a sick horse*</i>
<i>Request for help with getting a burnt possum to the emergency vet clinic at Dunalley*</i>
<i>Request for help with the removal of a pregnant goat off property*</i>
<i>A request for people to head to one of the hay drop-offs and help deliver the feed to livestock</i>
Request for assistance with missing/un-contactable people
<i>A request for someone in the area to go and check on a particular person who was considered to still be in his house</i>
<i>An attempt to connect with someone specific using other people’s connections on the TFWCH page – by either requesting a contact number, or having a message passed on, on their behalf</i>
Request for assistance with fundraising/sponsorship
<i>Request for bands or musicians who were able to take part in a fundraiser</i>
<i>Request for a volunteer to man a BBQ at a fundraiser*</i>
<i>Request for some more sponsors of the new TFWCH website*</i>
<i>Request for a framer to help with framing an item that would be part of a fundraiser*</i>
<i>A request for volunteers to help at the Dunalley Phoenix Festival*</i>
<i>A request for volunteers to help collect money at a large fundraiser</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
Request for assistance with housing/evacuation sleeping arrangements
<i>A request for housing or a caravan for a particular family or individual who had lost their home</i>
<i>A request for people who could offer housing to call a specific central government number, or go to a specific place to register</i>
<i>A suggestion for how to help, offering people access to toilets, showers and laundry facilities</i>
Request for assistance with helping online with TFWCH
<i>A request for someone to trawl back through the Facebook posts to find some information that was being looked for, or if anyone could remember that particular piece of information</i>
<i>A request by the Administrator for people to help the Administrator answer questions on the page if they felt they were able to do so</i>
<i>Request for help from the Administrator for an IT professional to help with some Facebook queries*</i>
Request for assistance with boats
<i>Request for help with somewhere to moor a boat in Hobart having come in from the fire-affected area</i>
<i>Request for help with landing lights to help a boat land safely in the darkness/smoke of the fire-affected area</i>
Request for assistance relating to health/psychological wellbeing
<i>Request for a nurse or doctor to provide some help in one of the affected areas</i>
<i>Request for a mental health care workers to go down into the area and assist with people's psychological wellbeing*</i>
<i>A request for people to post suggestions and ideas for activities for misplaced people to do to keep them occupied, as boredom was rife*</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
Request for assistance with volunteering/nomination of volunteering capabilities
<i>A request for a volunteer to help by being a receptionist for Volunteering Tasmania</i>
<i>Sharing information that the Mercury Newspaper was creating a database: collecting names and skills of people who were able to help after the initial emergency. Encouragement for people to register</i>
<i>A Council registry was collecting names and numbers of people with skills to volunteer. Encouragement for people to register</i>
<i>HIA and also BuildAQuote were putting together a registry for accredited builders to put their names down if they wanted to help with the recovery. Builders requested to register*</i>
<i>A way to help was to register with Volunteering Tasmania on their volunteering database. Encouragement of people to do so</i>
<i>Request for people to ring the local Council if they had things they wanted to offer/ways to help during the Molesworth fires*</i>
Request for assistance with the clean up and rebuild
<i>A request for help from electrical engineers or electricians as help was needed on the fire-affected oyster farm</i>
<i>A way to help was to volunteer privately with the clean up efforts, as some private groups had been organised and were seeking volunteers</i>
<i>Request for help from a printer or framer to help with replacing some lost photos</i>
<i>Request for help from someone who could wash down a roof in the affected area so that water tanks were safe. Plus some indoor cleaning*</i>
<i>Request for help with cleaning up a damaged property due to the Molesworth fire*</i>
Request for assistance with fencing/gardens/vegetation
<i>Request for advice on growing natives in the fire affected areas*</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>Request for help with the cutting down and removal of some burnt trees*</i>
<i>A request for volunteers to register with Blaze Aid and assist with fencing</i>
<i>Request for help from a fruit tree expert to run a workshop in the affected area for the Dunalley Tasman Neighborhood House*</i>
Request for assistance with broken/damaged items
<i>Request for help with the fixing of a smashed windscreen on a volunteer truck*</i>
<i>Request for help with the repair of a car that was damaged during the fires for someone who had lost everything else*</i>
<i>Request for help for someone to fix a broken part on a boat so that the boat owners could travel to the Peninsula and do another delivery</i>
Request for assistance with employment
<i>Request for help with putting oyster baskets together which were replacing thousands of those lost in the fires*</i>
<i>Request for help with suggestions or offers of employment opportunities for the Kelly family who had lost their business. Approximately 35 workers were out of a job and looking*</i>
Request for corporate assistance
<i>Request for businesses to contact the Salvation Army with what they might be able to contribute</i>
<i>Request for businesses to contact a local MP who would then pass on the Red Cross number, if they wanted to contribute</i>
Request/encouragement of cash donations
<i>Advertising ways that people could make a cash donation – such as through the Bendigo Bank, Salvation Army, Lions, Rotary, Westpac, The Red Cross Bushfire Appeal, private churches etc., and strongly requesting that they do so</i>

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>A way to help was by donating money to a local service station online collection to help people with fuel costs – strong encouragement of people to do so</i>
<i>A way to help was by contributing to a cash collection through a website for a specific person or family, set up by a friend</i>
Request/encouragement of people spending on tourism in the area
<i>Sharing a request for people to attend a thank you breakfast at a local hotel which was going to be broadcast on TV in order to help raise awareness and boost tourism*</i>
<i>Suggesting and requesting that individuals should spend tourism dollars in the area after the initial disaster had passed</i>
Request for assistance with media, research and story-telling
<i>Sharing a request for people to attend a thank you breakfast at a local hotel which was going to be broadcast on TV in order to help raise awareness and boost tourism*</i>
<i>Request for information from someone wanting to speak to people in the area in order to write a story on them for a magazine story, TV, news report or community newspaper</i>
<i>Request for information from anyone who had experience who would like to contribute to a book about Tasmania’s bushfires – a history book by the TFS*</i>
<i>Sharing information that the Mercury Newspaper wanted to collect details of everyone's fundraisers to help promote them</i>
<i>Request for people to take part in some post-fires research such as University projects/high school projects/Red Cross surveys*</i>
<i>Users of the page being requested to complete the Administrator’s survey*</i>
Request for assistance for phone bills/contacts at Telstra

Overarching theme: 'an arena for requesting help'
Key theme
<i>Subordinate theme</i>
<i>Request by the Administrator for some assistance from Telstra with a very large phone bill. Request for anyone with connections to Telstra to contact the Administrator</i>
Request for assistance in the evacuation hubs, recovery centers, or collection points for donations
<i>A request for help with cooking food for volunteers and people stranded</i>
<i>Request from the Sorell RSL for a hairdresser to come to the recovery hub and do hairdressing for fire-affected individuals</i>
<i>A request for volunteers to help at one of the child care centres that had been set up</i>
<i>A request for volunteers to help at the Sorell RSL with a range of tasks</i>
<i>A request for volunteers to head down to Cremorne and help lead and organise the boats heading out in the flotilla</i>
<i>A request for volunteers to help sort and organise donations at Vinnies</i>
<i>Vinnies were constantly requesting volunteers, and were constantly desperately in need of volunteers to sort through the donations. Even on January 13, 2013 they were desperately seeking more volunteers*</i>
<i>Request for someone to travel down to the Sorell RSL and fix the broken air conditioning unit</i>
<i>Request for volunteers to help sort a collection of donated goods at a specific drop-off point</i>
<i>Request for someone to take on the job of being the lunch coordinator out at Vinnies for the volunteers*</i>
<i>A request for volunteers to help put together food and supply packages at a Hobart pub which were to give to people when they were evacuated via the Food Bank</i>
Request for assistance with the Primary School

Overarching theme: ‘an arena for requesting help’
Key theme
<i>Subordinate theme</i>
<i>Request for people to volunteer with covering new books for the primary school*</i>
<i>Request for the sourcing and donation of old photos of the primary school to rebuild the school archives*</i>
Request for assistance with someone with connections
<i>Request for someone with a link to a charitable organisation to offer their signature so that Lego could make a specific donation that had been requested for a child*</i>
<i>Request by the Administrator for some assistance from Telstra with a very large phone bill. Request for anyone with connections to Telstra to contact the Administrator</i>
Request for help with missing/lost items
<i>Request for help with finding an important tool that had fallen off the back of a utility vehicle*</i>
<i>Request for help with looking for a missing set of keys in the fire-affected area*</i>
<i>Request for help with searching for a missing car on the Peninsula*</i>
Note: asterisked themes are those that emerged after January 9, 2013

Table 6. Qualitative Thematic Analysis 1: Subordinate themes for overarching theme ‘a marketplace for offering help’

Overarching theme: ‘a marketplace for offering help’
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Key theme
<i>Subordinate theme</i>
Offers of assistance with the transport or delivery of people or goods
<i>Bus owner, taxi owner, private car owner or boat owner willing and offering to transport people or goods to any location/a specific location</i>
<i>The offer of a courier service for free if needed</i>
<i>The use of a truck, trailer or car offered if needed</i>
<i>Offer of transport of good by private business of any items bought in-store for the cause</i>
<i>Offer from people located on the Peninsula to drive goods around to Nubeena from the jetty at which the goods were delivered to by boat</i>
<i>Offer of help – a person offering to take their jet ski out to help people see what was happening in the affected area</i>
<i>Offer of help – a person offering to take people in or out of Dunalley by boat</i>
<i>Offer of help – a person offering to take people in or out of Eaglehawk Neck, Slopen Main, or Nubeena by boat</i>
<i>Transport or delivery. Donation collection and delivery already taking place if any other individuals wished to add to it</i>
<i>Offer of help – a person offering to take his/her boat out to deliver supplies to any location</i>
<i>Offer of help – a person with sailing skills offering to help man a ship if any boat owners needed extra crew</i>
<i>Private boat owner communicating that they were setting off to deliver supplies. People encouraged to get in touch if they needed any specific items that could then be sourced and delivered</i>
Offers of assistance with the transport or delivery of items relating to livestock/pets/wildlife
<i>Offers to assist with the feeding, accommodation or transport or livestock</i>
<i>Offers of transport for pets</i>

Overarching theme: ‘a marketplace for offering help’
Key theme
<i>Subordinate theme</i>
Offers of the donation of items relating to children
<i>Offers of donated toys for children</i>
<i>Offers of toys, entertainment or specific supports and items for children on the autism spectrum, or for children with other disabilities</i>
<i>Offer of baby-packs for expecting mothers who had been affected by the fires</i>
Offers of the donation of items for the new primary school
<i>Offers of items relating to the School, such as stationery, books, learning materials, backpacks, library books, teaching resources</i>
<i>Offer of the donation of a new stained glass window for the new School</i>
Offers of the donation of items for fundraisers
<i>Offers of items that could be auctioned/part of raffles at fundraisers</i>
Offers of the donation of mechanical/technological/electrical items
<i>Offers of donated vehicles*</i>
<i>Offers of donated computers, computer monitors and laptops*</i>
<i>Offers of the loaning of a generator</i>
<i>The offer of port-a-loos if needed</i>
<i>The offer of a water tanker if needed</i>

Overarching theme: ‘a marketplace for offering help’	
Key theme	
Subordinate theme	
	<i>Offers of household appliances such as fridges, freezers, televisions, clothes dryers, washing machines, DVD players, CD players, dishwashers</i>
Offers of the donation of items relating to clothing/necessities/furniture/household goods	
	<i>Donated underwear from Bonds offered</i>
	<i>Offers of donated books for children or adults</i>
	<i>Donate Tupperware from Tupperware offered*</i>
	<i>Offer of the donation of Bibles for evacuation centers or hubs if required</i>
	<i>Offers of very specific clothing such as wedding dresses, corporate clothing, school uniforms for particular schools etc.</i>
	<i>Offers of clothing such as for children, for larger men, for particular sized women, handbags, shoes, hats, clothing for particular sized babies, general clothing etc.</i>
	<i>Offers of the donation of indoor and outdoor household items such as kitchen utensils, pots, pans, fry pans, Eskis, cutlery, towels, linen, bedding, garden tools, toiletries, makeup, sunscreen etc.</i>
	<i>Offer of the donation of a piano</i>
	<i>Offers of the donation of furniture, such as beds, baby cots, baby carriers, bunk beds, high chairs, dining room tables, office desks, chairs, sofas, recliners, outdoor furniture, bookcases, coffee tables, couches etc.</i>
Offers of the donation of items relating to livestock/pets	
	<i>Offers of donated horse halters and other horse-related equipment</i>

Overarching theme: ‘a marketplace for offering help’
Key theme
<i>Subordinate theme</i>
<i>Offers of donated pet food</i>
<i>Offers of the donation of free animals (for example: puppies, working dogs, kittens, chickens, cows, ponies)*</i>
Offers of the donation of items relating to the rebuild/recovery
<i>Offer of discounted shipping containers for the purposes of storage, re-starting a business, or temporary housing*</i>
<i>Offer of the donation of paint and paintbrushes*</i>
<i>Offer of the donation of some polypipe*</i>
<i>Offer of the donation of PPE equipment for people to wear during the clean up*</i>
Offers of the donation of items assisting with psychological recovery/support
<i>Offers of the donation of flowers to those affected, either directly or to the evacuation sites/recovery centers*</i>
<i>Offer of the donation of a collection of photos of the affected area that were taken just before the fires swept through if any locals wished to have them*</i>
Offers of information about the status of properties in the affected areas
<i>Individual in the affected area offering to go and look at properties for people in order to see if the property was still standing. Offer included taking photographs of the property to send to the home-owner*</i>
Offers of assistance of volunteering with an official body
<i>Qualified individuals offering to volunteer their time to help with St Johns and or Red Cross if needed</i>
Offers of assistance of helping with children

Overarching theme: ‘a marketplace for offering help’
Key theme
<i>Subordinate theme</i>
<i>Offers of free child-care or child minding</i>
<i>Offers of free children's entertainment</i>
<i>Child psychologist offering free advice or support if needed</i>
<i>Offers of toys, entertainment or specific supports and items for children on the autism spectrum, or for children with other disabilities</i>
Offers of assistance with clean up/repairs/manual labour/defending properties
<i>Offers of labour, tools or both to assist with the clean up or repairs</i>
<i>Offer of assistance to help with making fire breaks or anything else that might be needed for defending property from fire</i>
<i>Offers of assistance with repairing burnt/damaged jewelry or medals*</i>
<i>Offer of assistance with tasks involving manual labour, man power, tools and trucks</i>
Offers of assistance with technology
<i>Offer to attempt the retrieval of files and hard drives from burnt computers</i>
<i>Offer to repair old iPads, mobile phones or computers to then donate to the local primary school or fire-affected individuals*</i>
Offers of assistance with firefighting
<i>Offer from a private citizen to help with firefighting if people needed help defending their homes</i>
<i>Offer of assistance from a volunteer fire fighter willing to answer people's questions if needed</i>
<i>Offer of assistance to help with making fire breaks or anything else that might be needed for defending property from fire</i>

Overarching theme: ‘a marketplace for offering help’
Key theme
<i>Subordinate theme</i>
Offers of assistance with housing/access to showers and electricity
<i>Offer from a private citizen for accommodation options such as a the loaning/sharing/renting of a house, rental property, caravan, or land</i>
<i>Offer from an official group or organisation for accommodation options</i>
<i>Offer of temporary housing with Shelter Box*</i>
<i>Offer of assistance from a hotel in the fire-affected area that had located and connected a generator: access to showers, water, electricity for charging phones etc.*</i>
Offers of assistance with livestock/animals/pets/wildlife
<i>Offers of treatment, assistance, and support for injured or burnt livestock</i>
<i>Housing and accommodation options and offers for pets</i>
<i>Offers of housing for people requiring accommodation for both themselves and animals</i>
<i>Offers of treatment, assistance, and support for injured or burnt pets</i>
<i>Offers of assistance with injured, burnt, or displaced reptiles</i>
<i>Offers of assistance with injured or burnt wildlife</i>
<i>The emergency vet clinic started operating from January 13, 2013 to January 21, 2013 and was very busy during this period; treating pets, wildlife and livestock*</i>
<i>Offer of housing for pets for the Molesworth fire*</i>
<i>Offer of highly discounted cremation services for pets if needed*</i>

Overarching theme: 'a marketplace for offering help'
Key theme
<i>Subordinate theme</i>
Offers of assistance with medication/physical and psychological health and recovery, and general wellbeing
<i>Offer from a hospital or pharmacy to provide people with scripts and medication where possible</i>
<i>Offer of assistance for people with diabetes</i>
<i>Offer of help to those with disabilities for housing or disability aids, or any sort of assistance for adults with disabilities</i>
<i>Offer of help with psychological assistance for people concerned about their children's wellbeing</i>
<i>Offer of a free psychology consult*</i>
<i>Offer of free telephone advice from a mid-wife for pregnant, pre- or post-natal women</i>
<i>Offer of the free filling of scripts at the main hospital in Hobart</i>
<i>Operation Massage was organised and up and running by January 12, 2013. The group was still giving massages on February 2, 2013*</i>
<i>Offers of free hairdressing*</i>
Offers of assistance with legal issues
<i>Offer of assistance with legal advice and help</i>
Offers of assistance with employment
<i>Offer of a job and accommodation on King Island for anyone who wanted a sea change after the fires</i>
<i>Encouraging tradesmen and apprentices to contact Master Builders Australia, who were wanting to get in contact with and assist tradesmen who had lost all their tools*</i>

Overarching theme: ‘a marketplace for offering help’
Key theme
<i>Subordinate theme</i>
<i>Offer of help with recruitment for people looking for work</i>
<i>Offer of help – advice and assistance with damaged vineyards from a wine company on the mainland*</i>
Offers of assistance with the rebuild
<i>Offer of discount storage options</i>
<i>Offer of assistance from an electrician group to help with reconnecting houses once the power had been restored</i>
<i>Offer of assistance with working through the insurance process*</i>
<i>Offer of assistance with the collection and installation of items such as sinks and stoves into houses that were being rebuilt*</i>
<i>Offer of free assistance with home loan applications/construction loans</i>
<i>Offer of free assistance with plumbing/disconnecting downpipes*</i>
<i>Offers of assistance with insurance/documentation photography for insurance purposes or general photography*</i>
<i>Offer of free architectural consulting*</i>
<i>Offers of heavily discounted framing of photographs*</i>
<i>Offer of discounted building items and services*</i>
<i>Offers of free financial advice and assistance*</i>
Offers of assistance with food preparation at evacuation sites
<i>Offer of help from a chef if one was needed at any of the evacuation sites</i>

Overarching theme: ‘a marketplace for offering help’	
Key theme	
Subordinate theme	
Offers of assistance with recovery – holidays/entertainment	
	<i>Offers of holidays (flights, accommodation, transport, meals, entertainment) to people who had been affected*</i>
	<i>Offer of entertainment for teenagers by taking them out for a day at the cricket*</i>
	<i>Offer of entertainment with free tickets to the Great Moscow Circus that was performing in Hobart at the time*</i>
	<i>Offer of entertainment with free tickets to the Monster Truck event*</i>
	<i>Offer to host a kids birthday party for a fire-affected child who may have had one coming up that could no longer go ahead*</i>
	<i>Offer of entertainment with a sponsored table at the Heart Foundation Ball*</i>
	<i>Offers of free children's entertainment</i>
Offers of assistance with discounts on items needed for the response and recovery	
	<i>Businesses offering a discount on their goods, or donating some money to charity, if people bought things that were needed in-store</i>
Note: asterisked themes are those that emerged after January 9, 2013	

Table 7. Qualitative Thematic Analysis 1: Subordinate themes for overarching theme ‘the response’

Overarching theme: ‘the response’	
Key theme	
Subordinate theme	
People wanted to help and people did help	
	<i>Many people wanted to help and were willing to help. Examples of people’s willingness to help, and their generosity. Examples of the overwhelming support offered and provided</i>
	<i>Larger businesses and smaller businesses were willing to help. A number of businesses made extraordinarily generous donations. Examples of the donations put forward and the generosity displayed by businesses</i>
	<i>People were willing to travel a long way in order to help. Many stipulated they were willing to travel ‘anywhere’</i>
	<i>Extensive donations were being donated to Vinnies at the Showgrounds; to the boats; to Sorell; all over Tasmania</i>
	<i>Even people on the mainland of Australia, overseas or located in faraway points in Tasmania were trying to assist with the response and recovery effort through TFWCH</i>
	<i>Private citizens were taking boats out in order to help friends and family evacuate</i>
	<i>Private boats were evacuating strangers out of the affected areas</i>
	<i>Recognition by the Red Cross that the Tasmanian response to the fires was extraordinary*</i>
	<i>By January 22, 2013, over 18,000 people had donated cash to the Red Cross Bushfire Appeal*</i>
Multiple self-organised ‘splinter groups’ were operating	

Overarching theme: 'the response'	
Key theme	
Subordinate theme	
	<i>A number of self-organised 'splinter groups' (private or official) were organised. These were either underway already, that the Administrator then heard about or who then connected with this page, or were developed in response to the page. Some were started independently of government; some were started after having worked or liaised with government</i>
People were comfortable to post their private contact details on Facebook	
	<i>Private individuals were willing to post private contact information on the Facebook page. Examples of private contact information being shared by a private citizen within a post</i>
People wanted to help in direct, immediate ways	
	<i>People were keen to do direct cash donations to places that were helping out, such as the local hotel</i>
	<i>People emphasised that they did not want to send items to Vinnies; they wanted to give 'directly' to people in need*</i>
	<i>Lots of specific, amazing offers were coming in via the 'Recent Posts by Others' section on the Facebook page. Offers were streaming on to the page from very early on in the page's life</i>
Users of the page wished to be contacted in various means	
	<i>Private individuals were willing to post private contact information on the Facebook page. Examples of private contact information being shared by a private citizen within a post</i>
	<i>The way to contact this helper was for people to comment below the post and the helper who wished to stay anonymous or not provide a contact detail would then contact them in return</i>
	<i>Users advised to contact business or organisation via their Facebook page - Facebook page or name given as the contact details or in addition to the contact details of the group</i>
Information was able to spread quickly due to social media	

Overarching theme: 'the response'
Key theme
<i>Subordinate theme</i>
<i>Examples from TFWCH to support the idea that social media can spread information and requests very quickly and very widely</i>
It was recognised that the greater the following of the page, the more effective it would be
<i>Request for people to share and 'advertise' the page. Recognition that the more people involved in the page the better. Recognition that the more people share the page the more people who are affected might hear about the page and come to it to ask for help</i>
<i>Post included a request that people share it or pass it on to those who may need it or benefit from it</i>
Social media was seen as a 'positive'
<i>The 'good side' of social media was evident to users of the page. Comments from users that they did not realise it could be 'this useful'</i>
Social media was seen an effective way to be heard
<i>The message or evidence that 'if you reach out and ask for help you may well be heard'</i>
<i>Examples from TFWCH expressing the notion of social media giving people a voice; helping them to feel 'heard'</i>
Social media created brand new linkages of people and groups
<i>Specific donations to people in the affected area were possible even through an unknown middleman. Multiple connections and linkages were enabled through the page</i>
<i>A comment about meeting strangers, getting to know them, building new connections, making friends, due to the page*</i>
<i>Good linkages had been created between the TFWCH page and DPAC, ABC, individual politicians, and Red Cross, and Vinnies and other organisations such as Fire Foxes and Blaze Aid</i>
<i>Strangers were working with strangers to help other strangers in need. Social media enabled this to happen</i>

Overarching theme: 'the response'	
Key theme	
Subordinate theme	
The response on social media could be conducted entirely from a remote location by the Administrator, distant from the fire-affected area	
<i>The Administrator's first trip to Dunalley was around January 15, 2013. All support/work up to this point had been conducted remotely*</i>	
TFWCH was well-known, and people came to it to use its functions	
<i>The page was getting recognition, becoming widespread, very early on in the disaster. People were hearing about it</i>	
<i>Lots of offers of assistance were coming to TFWCH via the 'Recent Posts by Others' section on the Facebook page. Offers were streaming on to the page from very early on in the page's life</i>	
<i>A comment by someone who had offered help over the page that they had been recognised in the street and thanked due to recognition of their logo on their clothing that the passer-by had seen mentioned on TFWCH</i>	
<i>People were hearing about TFWCH on the radio while they were down in the affected areas</i>	
People believed that TFWCH was 'working' – that it was effective, accurate and informative	
<i>A comment around how the page was helping; how it was making a difference; how people's efforts were making a difference; how the page was actually having an impact on actions taken. Actual evidence/feedback/updates about an issue that was being worked on that demonstrates that the page was of assistance</i>	
<i>Comments that the page was accurate and informative</i>	
<i>The Administrator or TFWCH contributed towards getting a fundraiser off the ground or getting more cash or more donations to a particular fundraiser</i>	
<i>Government departments (such as Dept. of Education and Dept. of Premier and Cabinet), Tasmania Police and other groups (such as the ABC and The Mercury newspaper) were keeping an eye/utilising intelligence from TFWCH</i>	

Overarching theme: 'the response'	
Key theme	
Subordinate theme	
	<i>People expressed appreciation for the help and care being offered</i>
	<i>Someone commenting about reading all the posts that went up on the page and staying up to date – feeling like the page was keeping them updated on multiple topics and issues</i>
	<i>The potential of TFWCH to action tasks and 'get things done' was recognised early</i>
People believed that TFWCH could get their message across/communicate with the masses	
	<i>Early on in the emergency, there was recognition by other groups that there was a benefit for them in using the Administrator, TFWCH, and the page's large audience to broadcast information to the masses</i>
	<i>Examples from TFWCH expressing the notion of social media giving people a voice; helping them to feel 'heard'</i>
	<i>The message or evidence that 'if you reach out and ask for help you may well be heard'</i>
	<i>The State Government requesting the Administrator's contact details in order to be able to pass on to other departments so that other government employees could get in touch and therefore share information through the Administrator</i>
People believed that TFWCH was setting a precedent; and should be learnt from for future emergencies	
	<i>Recognition from others that the TFWCH operation had been really effective and that others should learn from it in the future*</i>
	<i>One month after the fires had started the Administrator realised the page needed to be researched and started to take steps to work out how this could be done*</i>
	<i>Comment around the page being unlike anything people had ever seen, the quantity of helping and giving being incredible*</i>
TFWCH was a source of information for multiple groups and departments	

Overarching theme: 'the response'	
Key theme	
Subordinate theme	
	<i>Government departments (such as Dept. of Education and Dept. of Premier and Cabinet), Tasmania Police and other groups (such as the ABC and The Mercury newspaper) were keeping an eye/utilising intelligence from TFWCH</i>
TFWCH and the Administrator were extremely busy	
	<i>Even as late as January 17, 2013, the Administrator was receiving an email about every 10 seconds. This is not accounting for all other constant activity on the page, such as ongoing comments and ongoing 'Recent Posts by Others'*</i>
	<i>January 12, 2013, 10 days after the fires started, marked the first day Administrator was able to be away from the page for a few hours*</i>
	<i>Posts would whizz past and get lost on Facebook. A comment about looking for a post that had come up before that they could no longer find</i>
	<i>Recognition or acknowledgement or evidence that Administrator was posting a lot; on the page a lot; under the pump</i>
	<i>The Administrator's phone bill was high, reflecting extensive action on the telephone; there was a lot of traffic on her phone as well as on the page*</i>
	<i>A request from the Administrator for people to help to answer questions from others on the page if they felt they were able to do so</i>
	<i>The TFWCH Twitter account was suspended due to all the activity on January 10, 2013*</i>
The TFWCH response was evolving and flexible	
	<i>The temporary TFWCH website was created on January 16, 2013. Prior to this date TFWCH had been using the temporary Google Docs spreadsheet as a central repository for information*</i>
	<i>Sharing information that the new TFWCH website went live on June 18, 2013*</i>
	<i>The 'central information spot' innovation that was tested and then abandoned</i>

Overarching theme: 'the response'
Key theme
<i>Subordinate theme</i>
<i>When the weather deteriorated, the group started to move out bigger boats rather than the smaller boats</i>
TFWCH provided almost a constant service in the first 14 days of the emergency
<i>Post by Administrator saying she had to leave the page for a few hours, get back to her real job, but that she would still be around. The first post to this effect was on January 13, 2013. Up to this point, the Administrator had not left the page except to overnight/for media interviews*</i>
TFWCH was operating beyond the initial emergency. The page proved to have longevity
<i>Some posts soon started coming up in February in relation to other fires that had started*</i>
<i>A request for a generator for the zoo for fires at the end of April 2013 was called in to the page and solved rapidly*</i>
<i>Sharing information that the new TFWCH website went live on June 18, 2013*</i>
<i>Post by Administrator in July 2013 saying she was going to take a break/needed a holiday but would be back soon*</i>
The page provided psychological support; filling gaps experienced in previous disasters
<i>Comment from someone that they were worrying less about loved ones in the area because of all the support they could see coming through. Comment that TFWCH was comforting*</i>
<i>People expressed appreciation for the help and care being offered</i>
<i>Comment from someone with personal disaster experience that TFWCH would bring relief and comfort to those affected</i>
<i>Recognition from the Australian Psychological Society that the page was a terrific resource*</i>
<i>Survivor of Black Saturday saying how 'good this page was' and how much they wish they had had something like it</i>
The page was a source of hope and inspiration

	Overarching theme: 'the response'
Key theme	
	<i>Subordinate theme</i>
	<i>A comment around the page being a source of hope and inspiration</i>
	<i>The message or evidence that 'even the smallest contribution can help or mean the most'</i>
People were moved to action by seeing the activity on the page	
	<i>Positive emotions were running high. People were moved and touched by the posts on the page and overall response of the community</i>
People experienced positive emotion from helping and volunteering	
	<i>People discovering and commenting that assisting and volunteering was proving to be rewarding</i>
	<i>People were humbled by being able to help, humbled by what they saw</i>
	<i>People mentioning pride. A sense of pride was created for the community response, their state, and their achievements. People were proud</i>
	<i>People finding the experience of working with others and seeing their generosity heart-warming</i>
	<i>A comment about meeting strangers, getting to know them, building new connections, making friends, due to the page*</i>
	<i>Positive emotions were running high. People were moved and touched by the posts on the page and overall response of the community</i>
	<i>A comment around having ones faith in humanity restored. Comment about caring and appreciation for people's kindness</i>
The page inspired even small contributions to take place	
	<i>The message or evidence that 'even the smallest contribution can help or mean the most'</i>
The community-led response was efficient, calm and smooth: based on team-work	
	<i>People were impressed with how organised the community-led response was and how well everyone was working together</i>

Overarching theme: ‘the response’
Key theme
<i>Subordinate theme</i>
<i>A comment around how much can be achieved ‘when everyone works together’</i>
<i>Others saying positive comments about how the community is pulling together as a whole, how good the response was, overall, not just through TFWCH</i>
<i>Strangers were working with strangers to help other strangers in need</i>
<i>Specific donations to people in the affected area were possible even through an unknown middleman. Multiple connections and linkages were enabled through the page</i>
<i>Comment that demonstrates how reasonable, calm, and patient people were being</i>
Various groups were working together effectively
<i>Good linkages had been created between the TFWCH page and DPAC, ABC, individual politicians, and Red Cross, and Vinnies and other organisations such as Fire Foxes and Blaze Aid</i>
<i>Post included a request for people to call the ABC if they had any information about that particular topic</i>
<i>A comment around how much can be achieved ‘when everyone works together’</i>
There was strong sense of Tasmanian/Australian/community spirit
<i>Reference to Tasmania or Australia in a collective, encouraging, community spirit kind of way</i>
<i>Strangers were working with strangers to help other strangers in need</i>
Note: asterisked themes are those that emerged after January 9, 2013

Table 8. Qualitative Thematic Analysis 1: Subordinate themes for overarching theme 'page administration and management'

Overarching theme: 'page administration and management'
Key theme
Subordinate theme
Information was sourced actively and passively from multiple official and unofficial sources
<i>Administrator sourced this information by hearing it on the ABC radio herself then posting about it on TFWCH</i>
<i>Administrator sourced this information by ringing the source directly or the source ringing the Administrator directly</i>
<i>Administrator sourced this information from text messages sent to her from the source</i>
<i>Administrator sourced this information from what other people had emailed in a private Facebook message from either their own personal experiences and knowledge or from what they had seen elsewhere</i>
<i>Administrator sourced this information from what other people had posted directly on the page</i>
<i>Administrator sourced this information by seeing it elsewhere on Facebook or other sites herself</i>
<i>Someone else heard this information on the ABC then passed it on to the page</i>
<i>Question asked by Administrator in order to crowd source the most accurate answer from the users of the page</i>
<i>Question asked by Administrator for crowdsourcing information in relation to the Molesworth fires*</i>
<i>Someone giving inside information from their work or something like that but who wanted to then stay anonymous</i>
<i>Official information that had not come from 'the top' yet but had come from someone on the ground or with some knowledge of the topic at hand</i>
<i>A reference to information people could access if tuning in and listening to ABC Radio</i>

Overarching theme: 'page administration and management'	
Key theme	
Subordinate theme	
	<i>The source was someone that the Administrator knew prior to the fires</i>
	<i>Communication by Government that they would send information to us and share information with us</i>
	<i>Some local information was trickling out here and there, and people were bringing it to the page</i>
	<i>Local radio station was doing a good job with keeping people up to date with regular postings of news during the Molesworth fires. Some of these were copy-pasted to TFWCH by the Administrator. This radio station may have been doing a great job during the other fires too; Administrator did not link back to them however so it is difficult to ascertain*</i>
	<i>Private citizen ringing a business, organisation or group to source information or ask for help then reporting back to the page which was then broadcast via TFWCH</i>
	<i>Administrator encouraging people to come forward and seek help or ask for information, as well as to share information they may have, if they need it in relation to the fires that had started in February*</i>
Administrator engaged in extensive networking; in particular to contact first-hand sources of information	
	<i>A request by the Administrator for people who were the first to get in touch with any of the key people in organisations/groups to then get in touch with the Administrator too so that she could pass all the accurate information on to the crowd through the page</i>
	<i>Administrator connecting with an official group to try to source accurate and up-to-date information to then put on the page</i>
	<i>Request by Administrator for people at the Evacuation Hubs, Recovery Centers or main charities to get in touch with her so she could pass on things that had been offered</i>
	<i>Request by Administrator for people with connections or in the know because they have just seen or heard information to contact her with that information in order to best inform the users how to help effectively</i>
	<i>Administrator connecting with the main people at the top of an organisation</i>

Overarching theme: 'page administration and management'
Key theme
<i>Subordinate theme</i>
Administrator encouraged real action by users of the page
<i>Request for people to take some action by ringing a place on the Administrator's or the community's behalf. Encouraging people to not just think about who could potentially help, but to actively call them and create some action</i>
The page was structured/had formatting/a set style and set of guidelines
<i>Post specifies 'who can help' or 'do you need this' with the particular request, seeking to get the attention of a specific sub-group of users for whom the post may be relevant</i>
<i>The post incorporated the use of asterisks, capitalised headings or content, or titles such as 'Important Post' or 'Urgent', to highlight the urgency or importance of a particular post</i>
<i>Post included a request that people share it or pass it on to those who may need it or benefit from it</i>
<i>Titles such as 'who can help' or 'can you help' or 'please help' used in the post</i>
<i>Administrator providing page administration or usage guidelines - educating people about how to use the page and how it was functioning</i>
The page was constantly providing updates, stories, summaries and re-iterations of important information
<i>Request that people keep an eye on the page for more or updated information</i>
<i>A repeat post (either identical or similar too) from an earlier post that needed reiterating, in ongoing and current, or had not been 'solved' yet</i>
<i>Administrator giving an update on a specific piece of information that was being sought or searched for. An update on the situation. Any sort of information update including if a problem had been solved</i>
<i>An update or summary from the Administrator of all the ways users of the page could help right at that moment in time</i>

Overarching theme: 'page administration and management'	
Key theme	
Subordinate theme	
	<i>Story telling. Administrator giving a report, reflection or description of something someone had done to help or assist with the responses and recovery. Telling a story about what people were up to, what they were contributing</i>
	<i>Private citizen providing an update over the page about what they are currently doing to help; keeping everybody else in the loop about their activities, reporting back, what they have seen, what they know</i>
	<i>An official group giving a detailed explanation about what they are doing, how things work in a disaster. Making a concerted effort to keep people in the loop and up to date</i>
	<i>Sharing an update about how much money the Red Cross appeal or the HOFM Radio 'Stuff the Bus' appeal had accumulated</i>
	<i>Administrator giving update over the page about all the things she was up to post-fires*</i>
	<i>A general update or summary of any information that is important or current</i>
	<i>Administrator's end-of-day, bedtime wrap up and summary</i>
	A 'key contacts' document was compiled, which became a database and evolved into a website to be used in conjunction with the page
	<i>Administrator compiling or advertising the central database of all the important phone numbers, websites and contacts for people to easily access. The 'key contacts' document that evolved into the TFWCH website</i>
	<i>The temporary TFWCH website was created on January 16, 2013. Prior to this date TFWCH had just been using the Google Docs spreadsheet as a central repository for information*</i>
	The page provided links to other websites, pages or contacts
	<i>Administrator recommending another website that was providing good information or support or could help in some way, shape or form; such as the TFS page, a government site, a private Facebook page, a fundraising link</i>

Overarching theme: 'page administration and management'
Key theme
<i>Subordinate theme</i>
<i>Official contact number or details shared within a post</i>
<i>Private contact information shared by a private citizen within a post</i>
<i>Link to another Facebook page or website provided with post, or link to a previous TFWCH post</i>
Administrator regularly expressed gratitude/praise via the page/shared gratitude/praise expressed by another individual or group
<i>A private citizen expressing a 'thank you' to the Administrator, the group, a person or business somewhere, that the Administrator then includes in the post</i>
<i>Administrator saying a general thank you or message of gratitude for everything people are doing or offering to help</i>
<i>Administrator saying a specific thank you for something someone had done to help or assist</i>
<i>Gratitude to people for supplying information about missing people from someone who was looking for that information</i>
<i>Official body saying thank you, or showing some sort of gratitude, either directly to the page or via a copied piece of information</i>
<i>Positive feedback, praise, gratitude direct to the Administrator for her efforts</i>
<i>'Shout-outs' to businesses and individuals for something they had contributed</i>
<i>Administrator saying thank you for the support of the Australian Story*</i>
<i>Praise or gratitude for firefighters, emergency crews, behind-the-scenes comms staff, authorities, the random people who have stepped up and taken on an official role</i>
Page acknowledged the source of information/expressed gratitude to the source
<i>Administrator acknowledging where information came from by thanking the person providing the information</i>

Overarching theme: 'page administration and management'
Key theme
<i>Subordinate theme</i>
Administrator/individual or group provided encouragement and support
<i>Administrator providing words of support, encouragement to people. Includes posts of encouraging or supportive photos, and praise of fundraisers, and encouragement that people report back about how their fundraiser went</i>
<i>Praise, congratulations, positive language to describe the response by the community and/or TFWCH</i>
<i>Administrator offering words of support directly to people who have been affected</i>
<i>Reminding people fundraising has to be done officially, and showing them where to go to get that organised. Encouraging them to consider what fundraiser they might do. Helping them to get started in a big way or a small way</i>
<i>Administrator encouraging people to come forward and seek help or ask for information, as well as to share information they may have, if they need it in relation to the fires that had started in February*</i>
Administrator used positive language
<i>Administrator using positive or gushy adjectives or language</i>
Administrator used humour very sparingly
<i>An example of use of humour by Administrator</i>
Administrator posted personal posts very sparingly
<i>An example of a more personal post from Administrator</i>
Administrator encouraged appropriate manners and respect from users of the page
<i>Post by the Administrator that is encouraging people to be respectful, patient, kind, gentle on the page. A post to encourage or remind users</i>

Overarching theme: 'page administration and management'
Key theme
<i>Subordinate theme</i>
<i>about being well mannered</i>
<i>A reminder to people to be kind to businesses even if they don't or can't donate</i>
<i>Post requesting people to not just go into the area to 'sticky beak'*</i>
Post designed to reassure/calm/peace-keep
<i>A post designed to try to get people to calm down, not assume the worst, that power was down so people might just not have phone reception, rather than being dead</i>
<i>Language and tone of post designed to peace keep, to calm people down, to keep things on a level</i>
<i>Administrator purposely did not post many of the sad, fire photos believing they would be unhelpful. The only fire-related photos posted were in order to continue to raise awareness about just how bad the fires had been to encourage further support*</i>
<i>Sharing information about the possibility that the ferries had stopped due to bad weather if people were still waiting to hear from loved ones</i>
Administrator 'translated' or summarised long or complex documents and media releases
<i>Example of Administrator 'translating' or summarising government information, recovery newsletters or media releases*</i>
A number posts were problematic/not ideal; there were areas for improvement for Administrator/community response next time
<i>A post by the Administrator that could have been done better or differently</i>
<i>The 'central information spot' innovation that was tested and then abandoned</i>
<i>Example of a business potentially taking advantage of the page for advertising purposes that Administrator perhaps could have shut down/not posted</i>

Overarching theme: 'page administration and management'	
Key theme	
Subordinate theme	
	<i>Posts could whizz past and get lost on Facebook. A comment about looking for a post that had come up before that they could no longer find</i>
	<i>Some boat owners were heading out in conditions they weren't suited too. Some boats were being helped as they had gotten in to trouble</i>
	<i>A collation of thank you's for anyone who had helped that someone was trying to put together. No update on if this one progressed *</i>
	<i>The Fair Dinkum clean up team were operating and doing a good job but ran into some trouble*</i>
	<i>There were some excessive or inappropriate donations. Or it is likely that there were excessive or unneeded donations</i>
	<i>One of the Administrator's strategies was to ignore rumours until more information came up. To not post about them at all</i>
	<i>People were offering items that were not perfect/not brand new/could not be delivered etc. People were being honest about the condition of items/conditions attached to items. This may have still been useful/offers taken up or maybe not; this is difficult to ascertain</i>
Requests were made for people to wait for more information	
	<i>Recognition by official group that people have a desire to help, but request that they are patient and await further instructions and advice</i>
	<i>Request by the Administrator for people to slow down, relax, and wait for more information. A post that subtly tells people that more information is being sought so they ought to relax. The post has an update about where things are at, why people still need patient</i>
The page provided health and safety information and reminders	
	<i>A post by the Administrator reminding people to prioritise safety, think carefully and use common sense. The post had safety-related content, and encouragement for people to take personal responsibility for their actions</i>
	<i>Safety reminders sent by concerned but positive private citizens which were then posted by the Administrator</i>
	<i>Boat safety information put out by MAST, the Administrator or Tasmania Police</i>

Overarching theme: 'page administration and management'	
Key theme	
Subordinate theme	
	<i>TFS message requesting people to be safe and careful in the convoys</i>
	<i>Post with the Administrator actively promoting mental health and stressing how important it is</i>
	<i>Sharing information - Total Fire Ban day declared by Tasmania Police</i>
	<i>Sharing information - linking to a specific fire alert page on the TFS website</i>
	<i>When the weather deteriorated, the group started to move out bigger boats rather than the smaller boats</i>
	<i>The page was providing links to the TFS page about other fires as well*</i>
Administrator encouraged critical thinking/using the most reliable/official sources when sourcing information	
	<i>Administrator reminding users that the highest quality sources of information were still the ABC and the TFS. Encouraging people or reminding people to stay up to date on the TFS page as the primary source</i>
	<i>Directing people who need information on the actual bushfires to other sources. Namely the TFS, ABC, or Tasmanian Bushfire Info Facebook page. Directing them away from TFWCH if they were searching for fire-specific information</i>
	<i>A reminder to people to in general think critically, to use common sense, to be smart, to not get caught up in scams etc. Particularly when donating money</i>
	<i>A reminder sent from a concerned but positive private citizen about only donating to official channels when it comes to financial donations</i>
	<i>Suggestion by Administrator that people are to only donate items to places that know what they are doing, to stick with official and/or organised ways of donating</i>
	<i>Post from a private citizen warning people to not be too trusting as not everyone is as honest as others</i>

Overarching theme: 'page administration and management'	
Key theme	
Subordinate theme	
<i>Reminding people fundraising has to be done officially, and showing them where to go to get that organised. Encouraging them to consider what fundraiser they might do. Helping them to get started in a big way or a small way</i>	
Administrator attempted to manage rumours and control the reliability of information	
<i>A post designed to address some of the rumours circulating – either via the Administrator directly or via Tasmania Police media releases*</i>	
<i>Request or statement by Administrator that people needed to post facts and not rumours, to post only good quality information that they knew was correct, to only post information that they knew was reliable</i>	
<i>One of the Administrator's strategies was to ignore rumours until more information came up. To not post about them at all</i>	
Administrator attempted to manage and control donations	
<i>A post saying when saturation had been reached at a collection point, when enough donations had been made, or when no more help was needed etc.</i>	
<i>A request for people to post underneath the post what they would be bringing in order to avoid unnecessary duplication</i>	
<i>Reiterating that the donation of money is preferable to the donation of goods. Highlighting that donating money via charities but also spending money in the area through tourism were the best ways to help</i>	
<i>Suggestion by the Administrator that people sell the goods they want to donate rather than donating them, and then give the money to the Red Cross Bushfire Appeal instead</i>	
<i>Request for specific donations to a specific place. Asking for specific items to a collection point, drop off point or person stranded in the area</i>	
<i>Specification by Administrator: advising people about what sort of items were not fit for donation</i>	
<i>Specification by an official: differentiating between what is needed and what is not needed - something in the post that is clear about being</i>	

Overarching theme: 'page administration and management'	
Key theme	
Subordinate theme	
<i>specific with donations or assistance</i>	
<i>Specification by the Administrator: differentiating between what is needed and what is not needed - something in the post that is clear about being specific with donations or assistance</i>	
<i>Specification by a private citizen: differentiating between what was needed and what was not needed - something in the post that is clear about being specific with donations or assistance</i>	
<i>Recognition that the organisation of donations can be very painful if there are not people present that are able to sort and organise them. Further encouragement for people to sort donations before giving</i>	
<i>A request that people ring some of the private citizens who are helping before they start donating and helping so that only the right things are collected</i>	
<i>There were some excessive or inappropriate donations. Or it is likely that there were excessive or unneeded donations</i>	
<i>Urgent donations of goods finally lessening late on the afternoon of January 10, 2013. Sorell RSL were not collecting anything else after January 11, 2013 except for specific requests through the page*</i>	
The Administrator attempted to fit into the overall response effectively	
<i>Administrator being conscious of being able to reduce burden on the officials if she can ring for information on behalf of everyone else, and then broadcast that information widely through TFWCH</i>	
<i>Advice by the Administrator to the users of the page to not get in the way when trying to help. A general reference to the pursuit of helping without getting in the way or being a hindrance</i>	
<i>Request from the Administrator for further information from the users of the page on how to help with a particular task 'without getting in the way'</i>	

Overarching theme: 'page administration and management'
Key theme
<i>Subordinate theme</i>
<i>Request for information through this page from a user who chose this option rather than 'bothering' the very busy emergency services</i>
<i>Comment by Administrator that we, the community, would continue to help; contributing and assisting alongside the official responders, until we were 'told to stop'</i>
<i>A reminder that people were only to ring the emergency hotline if it is actually an emergency</i>

Table 9. Facebook 'page like sources' definitions

Source	Description
From a mobile device	
Uncategorised mobile	From a mobile device
From a non-mobile device	
Page profile	On the TFWCH profile page
Hovercard	From the pop up window that appears when hovering over a link that leads to the TFWCH page
Like story	From seeing a story from TFWCH that a friend has liked
Timeline	From the "likes" section of the user's own timeline or someone else's timeline
Ticker	From a story the user saw about it in his or her ticker
Search	From doing a search
Recommended pages	From the recommended pages unit on Facebook profiles
Third party app	Through an application developed by a third party
Favourites	From seeing other pages that have liked the TFWCH page
External connect	From an external site that uses a Facebook social plugin
Mobile page suggestion	A suggestion received from a friend via mobile to like TFWCH

Table 10. Results for 'page like sources'

Variable	Time period								
	Week 1	Week 2	Week 3	Week 4	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Year 1
Mobile device									
Uncategorised mobile	8,350	413	84	26	9,013	54	148	20	9,235
Non-mobile device	4,940	447	106	60	5,578	196	502	84	6,560
Page profile	3,891	345	71	25	4,441	96	398	41	4,976
Hovercard	236	22	4	6	283	4	9	3	299
Like story	167	7	2	0	176	2	0	1	179
Timeline	51	15	13	9	136	32	10	8	186
Ticker	93	3	2	0	98	0	0	0	98
Search	26	0	2	1	31	4	5	1	41
Recommended pages	0	0	0	2	25	20	36	13	94
Third party app	19	1	0	3	25	1	2	0	28
Favourites	9	2	0	0	12	2	0	0	14
External connect	4	3	3	0	11	10	4	1	26
Mobile page suggestion	0	0	0	0	4	7	17	3	31
Others	444	49	9	14	536	18	21	13	588

Table 11. Q1, Q2 an Q3 links and passwords

Questionnaire	URL	Password
Q1 – Individuals who Helped	https://gobooty.wufoo.com/forms/tfwch-the-form-for-individual-people-who-helped/	tfwch
Q2 – Businesses/ Organisations who Helped	https://gobooty.wufoo.com/forms/tfwch-the-form-for-businessesorgs-who-helped/	tfwch
Q3 – Bushfire-affected Individuals	https://gobooty.wufoo.com/forms/tfwch-did-the-page-help-you-out-at-all/	tfwch



Tassie Fires - We Can Help

February 12, 2013 · 🌐

Dear everyone,

I am so grateful for your help already over this page. I cannot thank you enough. If you don't have time for what I am about to ask, I understand.

I want to see how this page has helped/what we could do better. I have put together three VERY quick little questionnaires. I promise they are quick!

Are you an individual who helped in some way during the fires? THANK YOU. Click here...

<https://gobooty.wufoo.com/.../tfwch-the-form-for-individual-.../>

Are you a businesses/organisations who helped in some way during the fires? THANK YOU! Click here...

<https://gobooty.wufoo.com/.../tfwch-the-form-for-businesseso.../>

Were you affected by the fires, and did this page actually help you? I hope so. Click here...

<https://gobooty.wufoo.com/.../tfwch-did-the-page-help-you-ou.../>

Again, I know everyone is so busy. And I know I have been asking a lot. But if you wouldn't mind... it would be truly fantastic to get your input.

Mel xxx

TFWCH - the form for individual people who helped!

GOBOOTY.WUFOO.COM

Figure 1. Sample public post for recruitment: February 12, 2013



Tassie Fires - We Can Help

February 14, 2013 · 🌐

Two things from me:

1) I was going to go to the Dunalley Pub for dinner last night but I went to a meeting about the bush fires instead (was very interesting; learnt a lot of cool things - will post soon!) I am going to be at the Pub tomorrow night (Saturday!) - come and hang out with us! Having a few beers at 6:30pm then dinner at 7:30pm.

2) Do you have a spare 5 minutes to help me work out how this page worked over the last 6 weeks/how to make it better? If you could help I would be so grateful (I know how busy everyone is):

Are you an individual who helped in some way during the fires? THANK YOU. Click here...

<https://gobooty.wufoo.com/.../tfwch-the-form-for-individual-.../>

Are you a businesses/organisations who helped in some way during the fires? THANK YOU! Click here...

<https://gobooty.wufoo.com/.../tfwch-the-form-for-businesseso.../>

Were you affected by the fires, and did this page actually help you? I hope so. Click here...

<https://gobooty.wufoo.com/.../tfwch-did-the-page-help-you-ou.../>

TFWCH - the form for individual people who helped!

GOBOOTY.WUFOO.COM

Figure 2. Sample public post for recruitment: February 14, 2013

Tassie Fires - We Can Help

Feb 24th, 5:53pm

I AM HALFWAY THERE!!!

I cannot thank you enough for your hard work so far... but... can you please give me the donation of 5 minutes of your time? Pretty pretty please!

I am sending this to you, because you are a wonderful person who sent me a private message at some point in the last 7 weeks. It means you have been helping or involved with the fires some how. Thank you for your hard work.

I am sorry if you are getting this twice... I promise you won't get it a third time. And if you have already done this – THANK YOU SO MUCH.

You might have seen on the main page – I am collecting a bit of data about how this page worked. I want to know how it could be improved next time, and to get a good idea of what was achieved and how we did it... I know you are really busy, but would you fill out a very quick questionnaire for me? I am halfway there with how many I want to collect. That's great news. Can you help me get towards the other half?

There are three of them – some might be relevant to you, some not. Just fill out the one (maybe two!) that is applicable to you

There's one for individuals who helped in some way during the fires...

<https://gobooty.wufoo.com/forms/tfwch-the-form-for-individual-people-who-helped/>

There's one for businesses/organisations who helped in some way during the fires...

<https://gobooty.wufoo.com/forms/tfwch-the-form-for-businessesorgs-who-helped/>

And there is one for people who WERE helped during the fires...

<https://gobooty.wufoo.com/forms/tfwch-did-the-page-help-you-out-at-all/>

I am so grateful for you help over this page, and if you don't have time, I understand. I really do.

Admin xxx

PS: I hope you don't feel like I am "spamming" you – it's just that you, as a community-minded person, have been involved in this page (thank you) and I know you have useful feedback to give that could mean we can do even greater things together in the future...

PPS: If there is something I need to follow up on for you, please don't hesitate to email me again! A few messages have slipped me by so message me again if you need something!

TFWCH - the form for individual people who helped!

gobooty.wufoo.com

Figure 3. Sample private message for recruitment: February 24, 2013

Table 12. Q1 and Q2: Respondents preferred media sources (n = 575)

Media Source	Individual Contributors	Bushfire Affected Individuals	Total	Media Source	Individual Contributors	Bushfire Affected Individuals	Total
Sample Size	n = 531	n = 44	n = 575	Sample Size	n = 531	n = 44	n = 575
Frequency (Percentage)				Frequency (Percentage)			
Tassie Fires – We Can Help				ABC Radio			
Extremely/Very Important	456 (85.9)	42 (95.5)	498 (86.6)	Extremely/Very Important	274 (51.6)	28 (63.6)	302 (52.5)
Important/Somewhat Important	68 (12.8)	2 (4.5)	70 (12.2)	Important/Somewhat Important	144 (27.1)	11 (25.0)	155 (27.0)
Not At All Important/Irrelevant	7 (1.3)	0 (0.0)	7 (1.2)	Not At All Important/Irrelevant	113 (21.3)	5 (11.4)	118 (20.5)
Total	531 (100.0)	44 (100.0)	575 (100.0)	Total	531 (100.0)	44 (100.0)	575 (100.0)
Other Facebook page				ABC TV			
Extremely/Very Important	113 (21.3)	12 (27.3)	125 (21.7)	Extremely/Very Important	165 (31.1)	14 (31.8)	179 (31.1)
Important/Somewhat Important	257 (48.4)	19 (43.2)	276 (48.0)	Important/Somewhat Important	241 (45.4)	20 (45.5)	261 (45.4)
Not At All Important/Irrelevant	161 (30.3)	13 (29.5)	174 (30.3)	Not At All Important/Irrelevant	125 (23.5)	10 (22.7)	135 (23.5)
Total	531 (100.0)	44 (100.0)	575 (100.0)	Total	531 (100.0)	44 (100.0)	575 (100.0)
Tasmania Fire Service website				Other radio station			
Extremely/Very Important	412 (77.6)	34 (77.3)	446 (77.6)	Extremely/Very Important	85 (16.0)	9 (20.5)	94 (16.3)
Important/Somewhat Important	89 (16.8)	9 (20.5)	98 (17.0)	Important/Somewhat Important	216 (40.7)	14 (31.8)	230 (40.0)
Not At All Important/Irrelevant	30 (5.6)	1 (2.3)	31 (5.4)	Not At All Important/Irrelevant	230 (43.3)	21 (47.7)	251 (43.7)
Total	531 (100.0)	44 (100.0)	575 (100.0)	Total	531 (100.0)	44 (100.0)	575 (100.0)

Media Source	Individual Contributors	Bushfire Affected Individuals	Total	Media Source	Individual Contributors	Bushfire Affected Individuals	Total
TV news				Twitter			
Extremely/Very Important	199 (37.5)	10 (22.7)	209 (36.3)	Extremely/Very Important	35 (6.6)	1 (2.3)	36 (6.3)
Important/Somewhat Important	241 (45.4)	20 (45.5)	261 (45.4)	Important/Somewhat Important	72 (13.6)	3 (6.8)	75 (13.0)
Not At All Important/Irrelevant	91 (17.1)	14 (31.8)	105 (18.3)	Not At All Important/Irrelevant	424 (79.8)	40 (90.9)	464 (80.7)
Total	531 (100.0)	44 (100.0)	575 (100.0)	Total	531 (100.0)	44 (100.0)	575 (100.0)
Friends/family				The Mercury newspaper			
Extremely/Very Important	256 (48.2)	24 (54.5)	280 (48.7)	Extremely/Very Important	111 (20.9)	10 (22.7)	121 (21.0)
Important/Somewhat Important	206 (38.8)	18 (40.9)	224 (39.0)	Important/Somewhat Important	249 (46.9)	19 (43.2)	268 (46.6)
Not At All Important/Irrelevant	69 (13.0)	2 (4.5)	71 (12.3)	Not At All Important/Irrelevant	171 (32.2)	15 (34.1)	186 (32.3)
Total	531 (100.0)	44 (100.0)	575 (100.0)	Total	531 (100.0)	44 (100.0)	575 (100.0)
Other newspaper				Emergency services on the ground			
Extremely/Very Important	47 (8.9)	1 (2.3)	48 (8.3)	Extremely/Very Important	-	23 (52.3)	23 (52.3)
Important/Somewhat Important	106 (20.0)	7 (15.9)	113 (19.7)	Important/Somewhat Important	-	14 (31.8)	14 (31.8)
Not At All Important/Irrelevant	378 (71.2)	36 (81.8)	414 (72.0)	Not At All Important/Irrelevant	-	7 (15.9)	7 (15.9)
Total	531 (100.0)	44 (100.0)	575 (100.0)	Total	-	44 (100.0)	44 (100.0)
Community meetings				Services door knocking			
Extremely/Very Important	-	17 (38.6)	17 (38.6)	Extremely/Very Important	-	8 (18.2)	8 (18.2)
Important/Somewhat Important	-	16 (36.4)	16 (36.4)	Important/Somewhat Important	-	13 (29.5)	13 (29.5)
Not At All Important/Irrelevant	-	11 (25.0)	11 (25.0)	Not At All Important/Irrelevant	-	23 (52.3)	23 (52.3)
Total	-	44 (100.0)	44 (100.0)	Total	-	44 (100.0)	44 (100.0)

Note: - = this item was not asked on this questionnaire

Table 13. Q1 and Q2: Volunteering activities

Volunteering activity or behaviour	Description
I donated/volunteered with St Vincent de Paul's at the Showgrounds	St Vincent de Paul's ("Vinnies") are an Australia-wide charity engaged by the Tasmanian State Government as part of the State Emergency Management Plan to take care of the collection of donations, and the distribution of these goods to those who have been affected. They were set up at a large area east of Hobart, the Hobart Showgrounds. They rely heavily on volunteers
I donated \$\$ to an official bushfire appeal (e.g.: Red Cross, Bendigo Bank, Salvos)	The Red Cross created a Tasmanian Bushfire Appeal in the first few days of the crisis. The Bendigo Bank also created an online cash donation appeal. There were a number of other groups such as The Salvation Army and various Lions Clubs and Rotary Clubs who were also collecting funds in an official capacity
I donated/volunteered at the Sorell RSL	The Sorell RSL is a building situated in the largest and nearest population centre to the main fire front. The RSL was functioning as the location where the Red Cross processed the registrations of people who had been evacuated from the area, and the RSL was feeding the evacuees. It also operated as a central point for organising the goods to be delivered into the fire affected area
I donated/volunteered at the Food Bank	The Food Bank is a not-for-profit that very quickly responded to the disaster. The Food Bank delivers fresh and non-perishable food to those in need. The CEO of the Food Bank was very well acquainted with this area and had many contacts, so took action almost immediately. The Food Bank would make requests to TFWCH, and volunteers would take goods or donate their time at the Food Bank, and then goods would be transferred to the fire affected areas from there
I helped out/donated at The Don/City Hall/Dunalley Recovery Centre/other evacuation or recovery site	A number of refuge centres were set up rapidly after the fires. Local councils ran a number of these, but others were created and maintained by community members and groups. The Dunalley Pub and surrounding paddock was founded as the "Recovery Centre", which was first started by community volunteers but then utilised by the official responders. There were deliveries occurring between the Sorell RSL, the Food Bank, and the Dunalley Recovery Centre

Volunteering activity or behaviour	Description
I donated/volunteered for Blaze Aid	Blaze Aid is a not-for-profit that was established after the Black Saturday Bushfires in Victoria in 2009. It is an organisation that musters and manages volunteers to rebuild fences or do other agricultural duties such as clear away burnt fruit trees. The organisation relies completely on financial donations to operate, and volunteers. All fencing material has to be donated
I donated/helped out at a fire station/to fire fighters (it is not your normal job)	There were two main fire incident stations running during the fires – one in the north of the state and one in the south of the state. There are also a number of volunteer fire brigades and fire stations set up all over the state
I took my boat out/got on a boat to make deliveries to the South East/Peninsula	A number of private boats elected to sail down to the Peninsula, which was isolated, and to deliver goods, share information, or collect stranded friends and family members. Some of these boats had self-organised prior to connecting to TFWCH; others had organised themselves having seen a call out on TFWCH for boats to travel down to the affected area. These boats left from a few main ports in the area and were collecting donations from the general public and local businesses before they departed
I took a donation to a boat that was leaving for the Peninsula from Cremorne/Margate/Bellerive/Dodges/other	Especially during the first seven days of the bushfire emergency the Peninsula was cut off from the rest of the state. The one road in and out was closed. Thus a number of sailors decided to make deliveries into the affected area while the roads remained sealed off under police instruction. Community members were encouraged to meet the boats at their departure points and make donations
I gave a donation/gift/ something that was needed directly to someone (...)	A number of individual requests were made for specific items (such as a cage for a cockatoo or a bunk bed for children). There was an ongoing emphasis on TFWCH that specific items were donated directly to someone who had made a specific request, rather than the more difficult to manage donation of general items
I donated something for fundraiser/gave money to one/attended a fundraiser!	The page emphasised the creation and support of fundraisers. All fundraisers were advertised through the page at least once, and detailed on a separate website that was custom built for the page. There was an emphasis, especially after the first few days of the disaster, for there to be a donation of money rather than a donation of potentially unnecessary goods

Volunteering activity or behaviour	Description
I created/played a big role in the making of a fundraiser!	People were strongly encouraged to start their own fundraisers or to help contribute to one. A large number of fundraisers took place
I made an offer of housing/housed someone/am still housing someone!	In the initial emergency a large number of locals and tourists were without accommodation. Most people found accommodation with friends or family, but not all were as fortunate. Thus many community members offered accommodation to those in need. The State Government Housing Department was also coordinating official housing arrangements for those in need
I offered my professional services for cheap/free	A number of professionals offered their skills for no charge across a very broad range of areas. Many volunteering hours were completed by volunteers utilizing their skills
I gave a stranger support/encouragement/praise (Q1 only)	Many people offered words of support or encouragement through the Facebook page or in the non-virtual world. This may have been in reply to a particular post or just in a more general way on the main section of the page, or out there in the world
I set up a Facebook page/group to help in some way	A number of Facebook pages were created during the fires, created by Administrators contributing to the response and recovery. Some pages had a general focus ('the fires') while others had a more specific focus ('helping reunite missing pets with owners')
I shared information online. I was able to answer questions that other people had.	There were a number of people whose primary contribution involved sharing or searching for information online. These people played key roles in bringing large quantities of data into manageable chunks for people who were looking for it. It appeared that many people were limited or unable to help out in the non-virtual world, but could play a very functional role by operating regularly online
I delivered something/was able to provide transport in some way	A number of times there were requests to move items from Point A to Point B. People were helping with the transportation of various items (including livestock and people). Often this meant that a number of parties were all involved in the one delivery: for example, Person A sourcing the item but lacking in transport, Person B delivering the item and Person C receiving the item.

Volunteering activity or behaviour	Description
I donated to the Dunalley Fuel Fund/made another donation of petrol/fuel	The Dunalley petrol station was the only station for a considerable length of time that was up and running during the fires. The owners of the station created an online fundraising page for people to donate money, which would then be transferred on to people coming in and out of the area who were in need of fuel. As the power was down for a considerable length of time, generators and fuel were the primary sources of power. The demand for fuel was high and consistent
I have helped in some way with the Sunset Cabins Rebuild	Sunset Cabins was a tourist accommodation in one of the worst hit areas. A number of volunteers worked hard to raise awareness, funds and support for the owner of the Cabins
I helped someone with the clean up/repairs at their property (not through an official organisation)	A number of properties were completely lost, but many received only partial damage. The State Government employed a local business to conduct the official clean up of property, and people were advised for safety reasons not to attempt the clean up of their own property. However people were needing help with smaller jobs such as the removal of burnt fences, exploded water tanks, or mess made by animals in houses, and people were able to offer their help for these jobs
I have helped in some way with Dunalley Primary School	The Dunalley Primary School is one of the only schools in the area, and it burnt down. It was rebuilt rapidly, and considerable resources and attention were paid to the school so that it could be up and running in time for the school year to commence
I contacted a business/organisation/celebrity to see if they could help	A number of people utilised their own contacts, or cold-called other businesses and groups, in order to gather donations and support
I created a drop-off point/a collection of specific items	There were pockets of people who started collection points for either general items or more specific items around not only Tasmania but interstate. These included for items such as livestock food or clothing for children

Volunteering activity or behaviour	Description
I put my name down with Volunteering Tasmania	Volunteering Tasmania is the Tasmanian not-for-profit that trains and organises volunteers not only during disasters, but also year round. Volunteering Tasmania asked people to register their details with them so that they might be deployed during the response. Volunteering Tasmania does not deploy individuals who do not already have appropriate training
I helped in some way with feeding livestock/donating food for livestock/getting food to livestock	There was a large need for the feeding of livestock. A number of hay and pig food drives were created and advertised through the page
I donated goods for fencing/I helped with fencing (separate to Blaze Aid)	In addition to Blaze Aid, other individuals helped contribute to the rebuilding of fences and fencing duties
I helped with missing/injured pets	A number of pets were injured, missing or killed during the fires
I helped with missing/injured livestock	A number of cattle were injured, missing or killed during the fires
I helped with injured/orphaned/affected wildlife	A number of wildlife were injured, trapped or killed during the fires
I got a vehicle/myself into the affected area when the roads were closed to get some work/donations done (...)	A roadblock stood in place for almost a full week after the initial fires had swept through. Although there were some convoys for people to leave the Peninsula, and then some convoys for locals to return to the Peninsula, the roads were closed for a considerable length of time. Some people used a back road to get into the fire-affected areas; others had organised police escort to get through
I got a vehicle/myself into the affected area when the roads were RE-OPENED to get some work/donations done (...)	The road was reopened approximately a week after the fire front was at its worst. By this stage the area was open to everybody

Items appearing in only Q2	
We gave staff time off/leeway to help with the fires	A number of businesses employed volunteers or people who had been affected by the fires in some way and were able to assist their ability to contribute
We offered free/discounted goods and services to those in need	A number of businesses came forward to offer assistance during the response and recovery
We donated/hired things to those in need/people who were assisting	A number of businesses came forward to offer assistance during the response and recovery
We gave a percentage of sales/income as a donation	A number of businesses came forward to offer assistance during the response and recovery

Table 14.Q1 and Q2: Volunteering activities (frequencies and percentages)

Volunteering behaviour or activity						Likelihood of completing volunteering behaviour or activity in the absence of the TFWCH Facebook page												Influence of the TFWCH Facebook page																	
Yes, I did do this			No, I didn't do this			No way/probably not			Hard to say/not sure			Page enabled more			Probably/definitely			The page had an impact			The page did not have an impact			Hard to say/not sure											
Frequency Percentage																																			
Individual			Bus/Org			Total			Individual			Bus/Org			Total			Individual			Bus/Org			Total			Individual			Bus/Org			Total		
Vinnies	180	17	197	310	65	375	59	3	62	27	2	29	29	5	34	65	7	72	88	8	96	65	7	72	27	2	29								
	36.7	20.7	34.4	63.3	79.3	65.6	32.8	17.6	31.5	15.0	11.8	14.7	16.1	29.4	17.3	36.1	41.2	36.5	48.9	47.1	48.7	36.1	41.2	36.5	15.0	11.8	14.7								
Cash	242	35	277	248	47	295	26	0	26	20	2	22	36	6	42	160	27	187	62	6	68	160	27	187	20	2	22								
	49.4	42.7	48.4	50.6	57.3	51.6	10.7	0.0	9.4	8.3	5.7	7.9	14.9	17.1	15.2	66.1	77.1	67.5	25.6	17.1	24.5	66.1	77.1	67.5	8.3	5.7	7.9								
Sorell RSL	82	12	94	408	70	478	29	2	31	3	1	4	13	2	15	37	7	44	42	4	46	37	7	44	3	1	4								
	16.7	14.6	16.4	83.3	85.4	83.6	35.4	16.7	33.0	3.7	8.3	4.3	15.9	16.7	16.0	45.1	58.3	46.8	51.2	33.3	48.9	45.1	58.3	46.8	3.7	8.3	4.3								
Foodbank	47	8	55	443	74	517	15	3	18	4	1	5	12	1	13	16	3	19	27	4	31	16	3	19	4	1	5								
	9.6	9.8	9.6	90.4	90.2	90.4	31.9	37.5	32.7	8.5	12.5	9.1	25.5	12.5	23.6	34.0	37.5	34.5	57.4	50.0	56.4	34.0	37.5	34.5	8.5	12.5	9.1								
Evac. site	119	18	137	371	64	435	43	4	47	10	0	10	16	4	20	50	10	60	59	8	67	50	10	60	10	0	10								
	24.3	22.0	24.0	75.7	78.0	76.0	36.1	22.2	34.3	8.4	0.0	7.3	13.4	22.2	14.6	42.0	55.6	43.8	49.6	44.4	48.9	42.0	55.6	43.8	8.4	0.0	7.3								
Blaze Aid	49	8	57	441	74	515	17	1	18	6	1	7	9	0	9	17	6	23	26	1	27	17	6	23	6	1	7								
	10.0	9.8	10.0	90.0	90.2	90.0	34.7	12.5	31.6	12.2	12.5	12.3	18.4	0.0	15.8	34.7	75.0	40.4	53.1	12.5	47.4	34.7	75.0	40.4	12.2	12.5	12.3								
Firestation	56	14	70	434	68	502	9	4	13	6	0	6	8	2	10	33	8	41	17	6	23	33	8	41	6	0	6								
	11.4	17.1	12.2	88.6	82.9	87.8	16.1	28.6	18.6	10.7	0.0	8.6	14.3	14.3	14.3	58.9	57.1	58.6	30.4	42.9	32.9	58.9	57.1	58.6	10.7	0.0	8.6								

Vinnies = I donated/volunteered with St Vincent de Paul's at the Showgrounds; **Cash** = I donated \$\$ to an official bushfire appeal (e.g.: Red Cross, Bendigo Bank, Salvos); **Sorell RSL** = I donated/volunteered at the Sorell RSL; **Foodbank** = I donated/volunteered at the Food bank; **Evac. Site** = I helped out/donated at The Don/City Hall/Dunalley Recovery Centre/other evacuation or recovery site; **Blaze Aid** = I donated/volunteered for Blaze Aid; **Fire station** = I donated/helped out at a fire station/to fire fighters (it is not your normal job)

Volunteering behaviour or activity						Likelihood of completing volunteering behaviour or activity in the absence of the TFWCH Facebook page												Influence of the TFWCH Facebook page								
Yes, I did do this			No, I didn't do this			No way/probably not			Hard to say/not sure			Page enabled more			Probably/definitely			The page had an impact			The page did not have an impact			Hard to say/not sure		
Frequency Percentage																										
	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total		
Boats 1	98	7	105	392	75	467	57	2	59	7	2	9	18	2	20	16	1	17	75	4	79	16	1	17		
	20.0	8.5	18.4	80.0	91.5	81.6	58.2	28.6	56.2	7.1	28.6	8.6	18.4	28.6	19.0	16.3	14.3	16.2	76.5	57.1	75.2	16.3	14.3	16.2		
Boats 2	19	2	21	471	80	551	8	0	8	0	0	0	2	0	2	9	2	11	10	0	10	9	2	11		
	3.9	2.4	3.7	96.1	97.6	96.3	42.1	0.0	38.1	0.0	0.0	0.0	10.5	0.0	9.5	47.4	100	52.4	52.6	0.0	47.6	47.4	100	52.4		
Direct help	340	47	387	150	35	185	107	5	112	32	2	34	53	13	66	148	27	175	160	18	178	148	27	175		
	69.4	57.3	67.7	30.6	42.7	32.2	31.5	10.6	28.9	9.4	4.3	8.8	15.6	27.7	17.1	43.5	57.4	45.2	47.1	38.3	46.0	43.5	57.4	45.2		
Event 1	292	37	329	198	45	243	52	3	55	25	1	26	31	7	38	184	26	210	83	10	93	184	26	210		
	59.6	45.1	57.5	40.4	54.9	42.5	17.8	8.1	16.7	8.6	2.7	7.9	10.6	18.9	11.6	63.0	70.3	63.8	28.4	27.0	28.3	63.0	70.3	63.8		
Event 2	93	31	124	397	51	448	21	0	21	8	5	13	15	8	23	49	18	67	36	8	44	49	18	67		
	19.0	37.8	21.7	81.0	62.2	78.3	22.6	0.0	16.9	8.6	16.1	10.5	16.1	25.8	18.5	52.7	58.1	54.0	38.7	25.8	35.5	52.7	58.1	54.0		
Housing	92	9	101	398	73	471	19	0	19	7	0	7	13	3	16	53	6	59	32	3	35	53	6	59		
	18.8	11.0	17.7	81.2	89.0	82.3	20.7	0.0	18.8	7.6	0.0	6.9	14.1	33.3	15.8	57.6	66.7	58.4	34.8	33.3	34.7	57.6	66.7	58.4		
Services	100	43	143	390	39	429	30	5	35	4	3	7	14	7	21	52	28	80	44	12	56	52	28	80		
	20.4	52.4	25.0	79.6	47.6	75.0	30.0	11.6	24.5	4.0	7.0	4.9	14.0	16.3	14.7	52.0	65.1	55.9	44.0	27.9	39.2	52.0	65.1	55.9		
Support	307	-	307	183	-	183	70	-	70	24	-	24	58	-	15	155	-	155	128.	-	128	155	-	155		
	62.7	-	62.7	37.3	-	37.3	22.8	-	22.8	7.8	-	7.8	18.9	-	18.9	50.5	-	50.5	41.7	-	41.7	50.5	-	50.5		

Boats 1 = I took a donation to a boat that was leaving for the Peninsula from Cremorne/Margate/Bellerive/Dodges/other; **Boats 2** = I took my boat out/got on a boat to make deliveries to the South East/Peninsula; **Direct help** = I gave a donation/gift/something that was needed directly to someone (...); **Event 1** = I donated something for a fundraiser/gave money to one/attended a fundraiser!; **Event 2** = I created/played a big role in the making of a fundraiser!; **Housing** = I made an offer of housing/housed someone/am still housing someone!; **Services** = I offered my professional services for cheap/free; **Support** = I gave a stranger support/encouragement/praise

Volunteering behaviour or activity						Likelihood of completing volunteering behaviour or activity in the absence of the TFWCH Facebook page												Influence of the TFWCH Facebook page								
Yes, I did do this			No, I didn't do this			No way/probably not			Hard to say/not sure			Page enabled more			Probably/definitely			The page had an impact			The page did not have an impact			Hard to say/not sure		
Frequency Percentage																										
	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total		
FB page	27	11	38	463	71	534	3	2	5	1	1	2	7	0	7	16	8	24	10	2	12	16	8	24		
	5.5	13.4	6.6	94.5	86.6	93.4	11.1	18.2	13.2	3.7	9.1	5.3	25.9	0.0	18.4	59.3	72.7	63.2	37.0	18.2	31.6	59.3	72.7	63.2		
Info	338	50	388	152	32	184	170	7	177	25	7	32	67	15	82	76	21	97	237	22	259	76	21	97		
	69.0	61.0	67.8	31.0	39.0	32.2	50.3	14.0	45.6	7.4	14.0	8.2	19.8	30.0	21.1	22.5	42.0	25.0	70.1	44.0	66.8	22.5	42.0	25.0		
Transport	183	34	217	307	48	355	65	6	71	17	3	20	33	7	40	68	18	86	98	13	111	68	18	86		
	37.3	41.5	37.9	62.7	58.5	62.1	35.5	17.6	32.7	9.3	8.8	9.2	18.0	20.6	18.4	37.2	52.9	39.6	53.6	38.2	51.2	37.2	52.9	39.6		
Fuel	53	6	59	437	76	513	31	0	31	3	0	3	6	2	8	13	4	17	37	2	39	13	4	17		
	10.8	7.3	10.3	89.2	92.7	89.7	58.5	0.0	52.5	5.7	0.0	5.1	11.3	33.3	13.6	24.5	66.7	28.8	69.8	33.3	66.1	24.5	66.7	28.8		
Cabins	27	2	29	463	80	543	18	0	18	1	1	2	1	0	1	7	1	8	19	0	19	7	1	8		
	5.5	2.4	5.1	94.5	97.6	94.9	66.7	0.0	62.1	3.7	50.0	6.9	3.7	0.0	3.4	25.9	50.0	27.6	70.4	0.0	65.5	25.9	50.0	27.6		
Clean up	50	6	56	440	76	516	9	0	9	2	0	2	4	0	4	35	6	41	13	0	13	35	6	41		
	10.2	7.3	9.8	89.8	92.7	90.2	18.0	0.0	16.1	4.0	0.0	3.6	8.0	0.0	7.1	70.0	100	73.2	26.0	0.0	23.2	70.0	100	73.2		
School	97	17	114	393	65	458	30	0	30	7	0	7	16	6	22	44	11	55	46	3	52	44	11	55		
	19.8	20.7	19.9	80.2	79.3	80.1	30.9	0.0	26.3	7.2	0.0	6.1	16.5	35.3	19.3	45.4	64.7	48.2	47.4	35.3	45.6	45.4	64.7	48.2		
Contact	177	39	216	313	43	356	70	7	77	12	1	13	23	5	28	72	26	98	93	12	105	72	26	98		
	36.1	47.6	37.8	63.9	52.4	62.2	39.5	17.9	35.6	6.8	2.6	6.0	13.0	12.8	13.0	40.7	66.7	45.4	52.5	30.8	48.6	40.7	66.7	45.4		

FB Page = I set up a Facebook page/group to help in some way; **Info** = I shared information online. I was able to answer questions that other people had; **Transport** = I delivered something/was able to provide transport in some way; **Fuel** = I donated to the Dunalley Fuel Fund/made another donation of petrol/fuel; **Cabins** = I have helped in some way with the Sunset Cabins Rebuild for Harvey; **Clean up** = I helped someone with the clean-up/repairs at their property (not through an official organisation); **School** = I have helped in some way with Dunalley Primary School; **Contact** = I contacted a business/organisation/celebrity to see if they could help

Volunteering behaviour or activity						Likelihood of completing volunteering behaviour or activity in the absence of the TFWCH Facebook page												Influence of the TFWCH Facebook page									
Yes, I did do this			No, I didn't do this			No way/probably not			Hard to say/not sure			Page enabled more			Probably/definitely			The page had an impact			The page did not have an impact			Hard to say/not sure			
Frequency Percentage																											
	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total	Individual	Bus/Org	Total			
Collection	98	29	127	392	53	445	27	8	35	6	2	8	23	4	27	42	15	57	50	12	62	42	15	57	6	2	8
	20.0	35.4	22.2	80.0	64.6	77.8	27.6	27.6	27.6	6.1	6.9	6.3	23.5	13.8	21.3	42.9	51.7	44.9	51.0	41.4	48.8	42.9	51.7	44.9	6.1	6.9	6.3
VT	50	7	57	440	75	515	17	1	18	4	0	4	10	1	11	19	5	24	27	2	29	19	5	24	4	0	4
	10.2	8.5	10.0	89.8	91.5	90.0	34.0	14.3	31.6	8.0	0.0	7.0	20.0	14.3	19.3	38.0	71.4	42.1	54.0	28.6	50.9	38.0	71.4	42.1	8.0	0.0	7.0
Animals 1	109	14	123	381	68	449	29	0	29	10	1	11	22	4	26	48	9	57	51	4	55	48	9	57	10	1	11
	22.2	17.1	21.5	77.8	82.9	78.5	26.6	0.0	23.6	9.2	7.1	8.9	20.2	28.6	21.1	44.0	64.3	46.3	46.8	28.6	44.7	44.0	64.3	46.3	9.2	7.1	8.9
Fencing	29	5	34	461	77	538	5	1	6	2	0	2	7	0	7	15	4	19	12	1	13	15	4	19	2	0	2
	5.9	6.1	5.9	94.1	93.9	94.1	17.2	20.0	17.6	6.9	0.0	5.9	24.1	0.0	20.6	51.7	80.0	55.9	41.4	20.0	38.2	51.7	80.0	55.9	6.9	0.0	5.9
Pets	65	6	71	425	76	501	15	0	15	4	1	5	18	1	19	28	4	32	33	1	34	28	4	32	4	1	5
	13.3	7.3	12.4	86.7	92.7	87.6	23.1	0.0	21.1	6.2	16.7	7.0	27.7	16.7	26.8	43.1	66.7	45.1	50.8	16.7	47.9	43.1	66.7	45.1	6.2	16.7	7.0
Animals 2	35	5	40	455	77	532	2	1	3	4	0	4	12	1	13	17	3	20	14	2	16	17	3	20	4	0	4
	7.1	6.1	7.0	92.9	93.9	93.0	5.7	20.0	7.5	11.4	0.0	10.0	34.3	20.0	32.5	48.6	60.0	50.0	40.0	40.0	40.0	48.6	60.0	50.0	11.4	0.0	10.0
Wildlife	50	8	58	440	74	514	8	0	8	4	0	4	7	5	12	31	3	34	15	5	20	31	3	34	4	0	4
	10.2	9.8	10.1	89.8	90.2	89.9	16.0	0.0	13.8	8.0	0.0	6.9	14.0	62.5	20.7	62.0	37.5	58.6	30.0	62.5	34.5	62.0	37.5	58.6	8.0	0.0	6.9
In: during	46	12	58	444	70	514	9	2	11	4	0	4	5	0	5	28	10	38	14	2	16	28	10	38	4	0	4
	9.4	14.6	10.1	90.6	85.4	89.9	19.6	16.7	19.0	8.7	0.0	6.9	10.9	0.0	8.6	60.9	83.3	65.5	30.4	16.7	27.6	60.9	83.3	65.5	8.7	0.0	6.9

Collection = I created a drop-off point/a collection of specific items; **VT** = I put my name down with Volunteering Tasmania; **Animals 1** = I helped in some way with feeding livestock/donating food for livestock/getting food to livestock; **Fencing** = I donated goods for fencing/I helped with fencing (separate to Blaze Aid); **Pets** = I helped with missing/injured pets; **Animals 2** = I helped with missing/injured livestock; **Wildlife** = I helped with injured/orphaned/affected wildlife; **In: during** = I got a vehicle/myself into the affected area when the roads were closed to get some work/donations done (...)

Volunteering behaviour or activity						Likelihood of completing volunteering behaviour or activity in the absence of the TFWCH Facebook page												Influence of the TFWCH Facebook page									
Yes, I did do this			No, I didn't do this			No way/probably not			Hard to say/not sure			Page enabled more			Probably/definitely			The page had an impact			The page did not have an impact			Hard to say/not sure			
Frequency Percentage																											
Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			Individual Bus/Org Total			
In: after	63	14	77	427	68	495	8	1	9	4	0	4	6	1	7	45	12	57	14	2	16	45	12	57	4	0	4
	12.9	17.1	13.5	87.1	82.9	86.5	12.7	7.1	11.7	6.3	0.0	5.2	9.5	7.1	9.1	71.4	85.7	74.0	22.2	14.3	20.8	71.4	85.7	74.0	6.3	0.0	5.2
Staff time	-	31	31	-	51	51	-	2	2	-	3	3	-	2	2	-	24	24	-	4	4	-	24	24	-	3	3
	-	37.8	37.8	-	62.2	62.2	-	6.5	6.5	-	9.7	9.7	-	6.5	6.5	-	77.4	77.4	-	12.9	12.9	-	77.4	77.4	-	9.7	9.7
Free goods	-	36	36	-	46	46	-	6	6	-	0	0	-	8	8	-	22	22	-	14	14	-	22	22	-	0	0
	-	43.9	43.9	-	56.1	56.1	-	16.7	16.7	-	0.0	0.0	-	22.2	22.2	-	61.1	61.1	-	38.9	38.9	-	61.1	61.1	-	0.0	0.0
Hiring	-	28	28	-	54	54	-	5	5	-	0	0	-	5	5	-	18	18	-	10	10	-	18	18	-	0	0
	-	34.1	34.1	-	65.9	65.9	-	17.9	17.9	-	0.0	0.0	-	17.9	17.9	-	64.3	64.3	-	35.7	35.7	-	64.3	64.3	-	0.0	0.0
% sales	-	12	12	-	70	70	-	1	1	-	2	2	-	3	3	-	6	6	-	4	4	-	6	6	-	2	2
	-	14.6	14.6	-	85.4	85.4	-	8.3	8.3	-	16.7	16.7	-	25.0	25.0	-	50.0	50.0	-	33.3	33.3	-	50.0	50.0	-	16.7	16.7

In: after = I got a vehicle/myself into the affected area when the roads were RE-OPENED to get some work/donations done (...); **Staff time** = We gave staff time off/leeway to help with the fires; **Free goods** = We offered free/discounted goods and services to those in need; **Hiring** = We donated/hired things to those in need/people who were assisting; **% sales** = We gave a percentage of sales/income as a donation

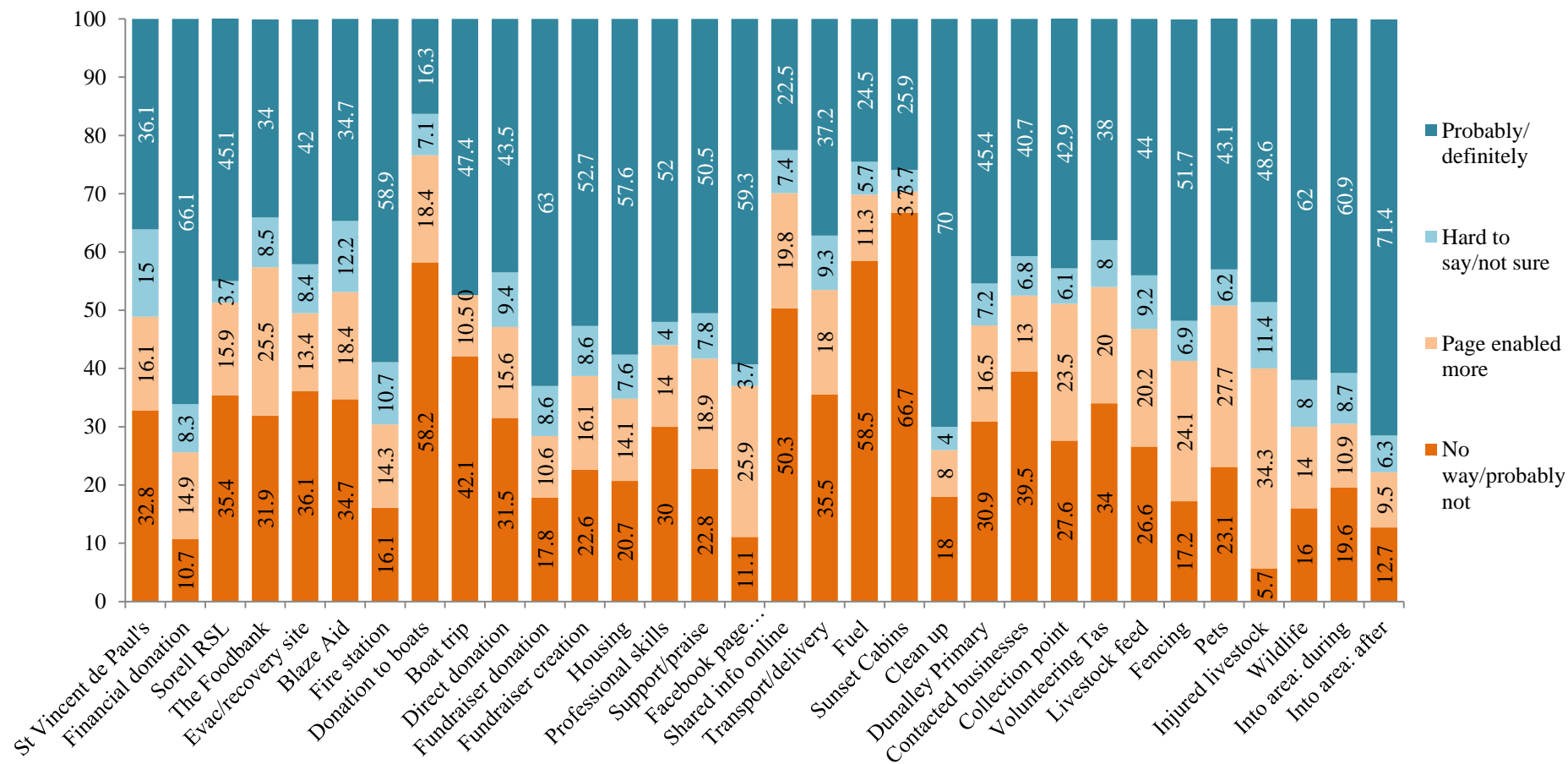


Figure 4. Q1: Likelihood of engaging in volunteering without TFWCH

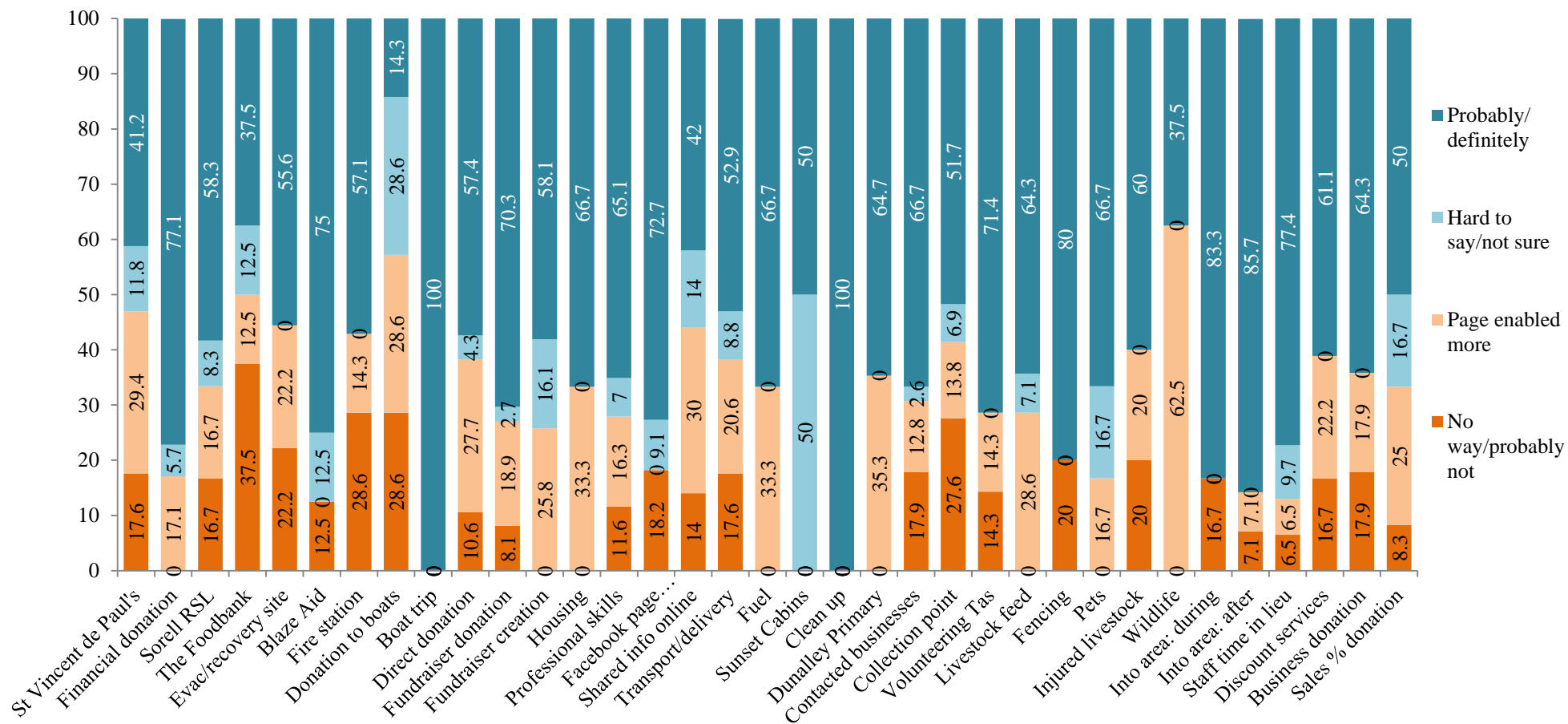


Figure 5. Q2: Likelihood of engaging in volunteering without TFWCH

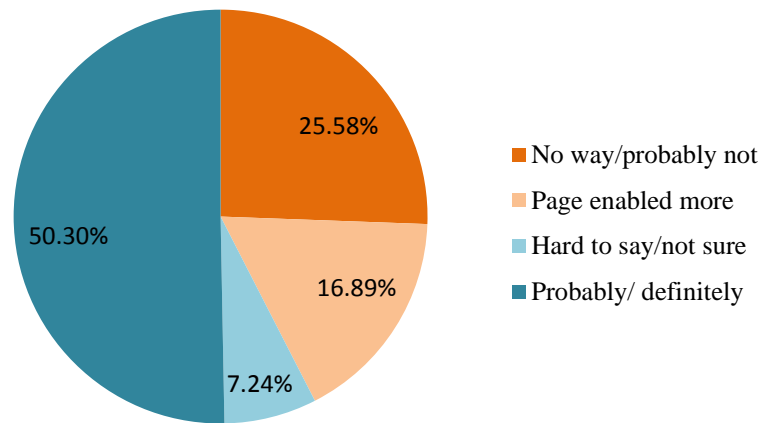


Figure 6. Q1 and Q2 combined: Likelihood of engaging in volunteering without TFWCH

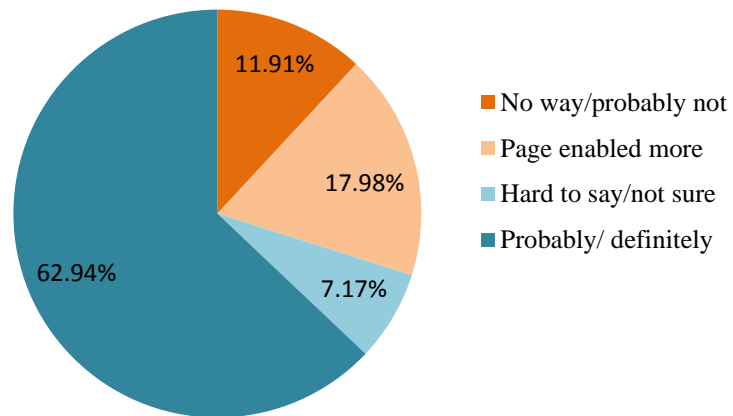


Figure 7. Q2: Likelihood of engaging in volunteering without TFWCH: all volunteering

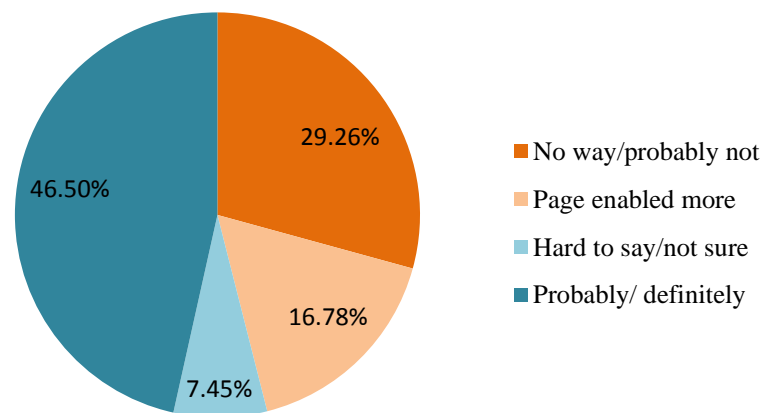


Figure 8. Q1: Likelihood of engaging in volunteering without TFWCH: all volunteering

Table 15. Q3: List of potential uses of TFWCH

Assistance sought	Description
Getting donations of tools/items I lost that I need for work	Some people were requesting the donation of specific tools that had been lost; or friends and family were asking for those tools on their behalf
Sourcing unofficial information coming from the community	People used the page to source unofficial information such as which locals were stranded, the precise location of the fire, and who was helping in what area
Being able to pass on information to someone else online	The page was used a medium for connecting with other people either in the same location or on the other side of the fire front
Being able to pass on information to someone else in the real world	The page was also used to source information that was then transferred to someone else in the real world who may not have seen that information online or elsewhere
Being able to get information on the condition of my house/shack	The page was a source of information for people looking for precise information on the condition of their home or shack in the bushfire affected area
Feeling like I was still connected to the outside world	The page was used as a means of connecting with the outside world when people were stranded, or when other little telecommunications were available
Getting help with fencing from Blaze Aid/finding out about Blaze Aid	Blaze Aid is a not-for-profit that helps rebuild new fences and remove old fences after a disaster
Getting help with fencing from the community/elsewhere	Fencing is a big issue after a fire and people used the page to help source fencing materials
Be able to get information on the actual fires	People were using the page to ask specific information about the location and direction of the bushfires

Getting a special item/gift donated to a child of mine	A gift registry was set up through the page for children who had lost items in the fires. People were able to use the page to request the donation of a specific gift for their child
Finding a place to stay/live	Many people were dislocated after the fires or their homes had burnt down, and required accommodation assistance
Getting animals/livestock moved or housed during the crisis	The affected area is a large agricultural area, containing many hobby farms. Many people needed to move their livestock or ask for help with agistment, and were seeking assistance
Getting some good advice on looking after my mental health and wellbeing	The page posted a number of posts relating to mental health and wellbeing relating to the stress, shock and trauma associated with the bushfires
Getting something delivered to me via truck/boat when the roads were blocked	The road into the Tasman Peninsula was closed for almost one full week before being reopened when it was deemed safe. Boats were able to access a number of points on the Peninsula, and trucks were able to get through with police escort. A number of police organised convoys were also able to access the peninsula after the first four or so days
Knowing the Sorell RSL was up and running and what they were doing there	The Sorell RSL building is in the nearest township to the area, which was most gravely affected by the fires. It operated as a registration site and evacuation center for the first couple of weeks after the fires began
Knowing about the Food Bank and what they were doing	The Food Bank is a national not-for-profit that delivers fresh food to those in need. The Food Bank played a vital role in the collection and dissemination of food during the early recovery phase
Replacing an item/items lost in the fires	The page was used as a way to source the donation of specific items that had been lost
Getting someone with professional skills to help me with something during the crisis	A number of professional services offered their assistance for free during the fires over the Facebook page that people could utilise
Getting help locating a missing pet	A number of pets went missing that people were searching for as soon as they were able to return to their properties

Receiving a direct \$\$ donation (not through a charity as such)	Some of the general population or groups organised direct cash donations to those who had been affected by the fires
Being able to find information on a missing person/someone I hadn't heard from	For a number of days as many as 100 people were recorded as missing by Tasmania Police. A number of people were asking for information over the Facebook page about missing loved ones
Getting information about what financial assistance I might be entitled to	Financial assistance was made available very early on in the disaster and the page helped to advertise what assistance people were entitled to and where they could access it from
Sourcing official information from Vinnies/Red Cross/Salvos or other "official" organisations	A number of the official emergency responders used the page to share information, or information about them was simply shared on the page to help inform the rest of the community
Knowing what was available at Vinnies	Vinnies (St Vincent de Paul's) is the organisation in charge of managing and disseminating donations during disasters
Knowing there was money from the Red Cross/other appeals and how I could get it	A number of official appeals were set up early on when the fires had started and money was made available at various time points from the Red Cross Bushfire Appeal Committee
Getting help with food for livestock	Feeding livestock was a major issue during the fires and people used the page to source help with receiving donated hay and food
Getting information about the nearest safe places/recovery centres/evacuation sites	A number of evacuation sites or recovery centres were set up immediately post-disaster in various locations
Getting help with injured/missing livestock	A number of livestock needed assistance with burns and injuries and people used the page to seek help for their injured animals

Getting important information from the government	The page disseminated information from the State and Federal governments about their activities to help keep the population informed
Getting safety information about returning to my property/info on asbestos/clean water tanks	Health and safety information was disseminated over the page to help make people's return to their properties as safe as possible
Getting information about the clean up	The official clean up was organised by the Government who contracted a local company to complete the removal of all damaged buildings
Getting another pet/animals	Some people offered give-away pets or animals over the page
Receiving support/encouragement/praise from a stranger	People offered praise, support and encouragement over the page in various ways, either when responding to a post or answering somebody else's direct post on the page
Hearing about/using another Facebook page that had been set up about the fires	The page advertised other social media groups that were operating during the time that could be of assistance
Getting a fuel/petrol donation or assistance with fuel	The sourcing of petrol was an ongoing issue during the fires as with the power out, petrol stations in the area were unable to operate. Many people required petrol to fuel water tanks and pumps to fight the fires and everywhere many people were low on fuel or had none at all
Having some work/clean up/repairs done on my property	With such a large amount of properties damaged some people were seeking assistance with repair and clean up activities
Getting help/donations/gifts to do with Dunalley Primary School	The Dunalley Primary School burnt down during the fires and it was a priority of the State Government to rebuild the School in time for the new school year to commence. This was achieved – the School was rebuilt within 5 weeks
Getting assistance from people working through Volunteering Tasmania	Volunteering Tasmania is the peak body for training and managing volunteers

Getting help with injured wildlife I came across	Wildlife is always gravely affected in fires. A number of groups and individuals were working on the issue of looking after injured wildlife
Getting someone in to the affected area to help or assist me when the roads were blocked	Some people required help behind the roadblock while the roads were still closed. Some people were able to get in or able to help on that side of the road block
Getting someone in to the affected area to help or assist me AFTER the roads were re-opened	After the roads had been reopened the Peninsula became a flurry of activity
Getting general support	The page was a way for people to ask for or receive support on a number of different levels

Table 16. Importance of TFWCH for bushfire-affected individuals

Perceived importance of TFWCH for seeking and receiving assistance				Perceived importance of TFWCH for seeking and receiving assistance			
	Vital/ important	Somewhat important	Neutral/not important		Vital/ important	Somewhat important	Neutral/not important
Assistance	Frequency (<i>Percentage</i>)			Assistance	Frequency (<i>Percentage</i>)		
<i>n</i> = 44							
Getting donations of tools/items I lost that I need for work	10 (22.7)	2 (4.5)	32 (72.7)	Sourcing unofficial information coming from the community	42 (95.5)	2 (4.5)	0 (0.0)
Being able to pass on information to someone else online	35 (79.5)	5 (11.4)	4 (9.1)	Being able to pass on information to someone else in the real world	30 (68.2)	4 (9.1)	10 (22.7)
Being able to get information on the condition of my house/shack	10 (22.7)	2 (4.5)	32 (72.7)	Feeling like I was still connected to the outside world	29 (65.9)	4 (9.1)	11 (25.0)
Getting help with fencing from Blaze Aid/finding out about Blaze Aid	7 (15.9)	3 (6.8)	34 (77.3)	Getting help with fencing from the community/elsewhere	4 (9.1)	2 (4.5)	38 (86.4)
Be able to get information on the actual fires	31 (70.5)	6 (13.6)	7 (15.9)	Getting a special item/gift donated to a child of mine	6 (13.6)	0 (0.0)	38 (86.4)
Finding a place to stay/live	6 (13.6)	0 (0.0)	38 (86.4)				

Perceived importance of TFWCH for seeking and receiving assistance				Perceived importance of TFWCH for seeking and receiving assistance			
	Vital/ important	Somewhat important	Neutral/not important		Vital/ important	Somewhat important	Neutral/not important
Assistance	Frequency (<i>Percentage</i>)			Assistance	Frequency (<i>Percentage</i>)		
<i>n</i> = 43							
Getting animals/livestock moved or housed during the crisis	5 (<i>11.6</i>)	1 (<i>2.3</i>)	37 (<i>86.0</i>)	Getting some good advice on looking after my mental health and wellbeing	11 (<i>25.6</i>)	7 (<i>16.3</i>)	25 (<i>58.1</i>)
Getting something delivered to me via truck/boat when roads blocked	13 (<i>30.2</i>)	3 (<i>7.0</i>)	27(<i>62.8</i>)	Knowing the Sorell RSL was up and running and what they were doing there	19 (<i>44.2</i>)	5 (<i>11.6</i>)	19 (<i>44.2</i>)
Knowing about the Food Bank and what they were doing	22 (<i>51.2</i>)	2 (<i>4.7</i>)	19 (<i>44.2</i>)	Replacing an item/items lost in the fires	9 (<i>20.9</i>)	2 (<i>4.7</i>)	32 (<i>74.4</i>)
Getting someone with professional skills to help me with something during the crisis	10 (<i>23.3</i>)	3 (<i>7.0</i>)	30 (<i>69.8</i>)	Getting help locating a missing pet	5 (<i>11.6</i>)	2 (<i>4.7</i>)	36 (<i>83.7</i>)
Receiving a direct \$\$ donation (not through a charity as such)	8 (<i>18.6</i>)	4 (<i>9.3</i>)	31 (<i>72.1</i>)	Being able to find information on a missing person/someone I hadn't heard from	14 (<i>32.6</i>)	1 (<i>2.3</i>)	28 (<i>65.1</i>)
Getting info about what financial assistance I might be entitled to	21 (<i>48.8</i>)	12 (<i>27.9</i>)	10 (<i>23.3</i>)	Sourcing official information from Vinnies/Red Cross/Salvos or other "official" organisations	22 (<i>51.2</i>)	6 (<i>14.0</i>)	15 (<i>34.9</i>)
Knowing what was available at Vinnies	13 (<i>30.2</i>)	6 (<i>14.0</i>)	24 (<i>55.8</i>)	Knowing there was money from the Red Cross/other appeals and how I could get it	11 (<i>25.6</i>)	3 (<i>7.0</i>)	29 (<i>67.4</i>)

Perceived importance of TFWCH for seeking and receiving assistance				Perceived importance of TFWCH for seeking and receiving assistance			
	Vital/ important	Somewhat important	Neutral/not important		Vital/ important	Somewhat important	Neutral/not important
Assistance	Frequency (Percentage)			Assistance	Frequency (Percentage)		
Getting help with food for livestock	6 (14.0)	4 (9.3)	33 (76.7)	Getting information about the nearest safe places/recovery centres/evacuation sites	21 (48.8)	9 (20.9)	13 (30.2)
Getting help with injured/missing livestock	3 (7.0)	2 (4.7)	38 (88.4)	Getting important information from the government	19 (44.2)	11 (25.6)	13 (30.2)
Getting safety information about returning to my property/info on asbestos/clean water tanks	20 (46.5)	5 (11.6)	18 (41.9)	Getting information about the clean up	21 (48.8)	9 (20.9)	13 (30.2)
Getting another pet/animals	3 (7.0)	2 (4.7)	38 (88.4)	Receiving support/encouragement/praise from a stranger	26 (60.5)	3 (7.0)	14 (32.6)
Hearing about/using another Facebook page that had been set up about the fires	17 (39.5)	7 (16.3)	19 (44.2)	Getting a fuel/petrol donation or assistance with fuel	7 (16.3)	5 (11.6)	31 (72.1)
Having some work/clean up/repairs done on my property	8 (18.6)	1 (2.3)	34 (79.1)	Getting help/donations/gifts to do with Dunalley Primary School	12 (27.9)	3 (7.0)	28 (65.1)
Getting assistance from people working through Volunteering Tasmania	9 (20.9)	1 (2.3)	33 (76.7)	Getting help with injured wildlife I came across	8 (18.6)	3 (7.0)	32 (74.4)
Getting someone in to the affected area to help or assist me when the roads were blocked	11 (25.6)	2 (4.7)	30 (69.8)	Getting someone in to the affected area to help or assist me AFTER the roads were re-opened	14 (32.6)	1 (2.3)	28 (65.1)

Perceived importance of TFWCH for seeking and receiving assistance				Perceived importance of TFWCH for seeking and receiving assistance			
	Vital/ important	Somewhat important	Neutral/not important		Vital/ important	Somewhat important	Neutral/not important
Assistance	Frequency (<i>Percentage</i>)			Assistance	Frequency (<i>Percentage</i>)		
Getting general support	31 (72.1)	5 (11.6)	7 (16.3)				

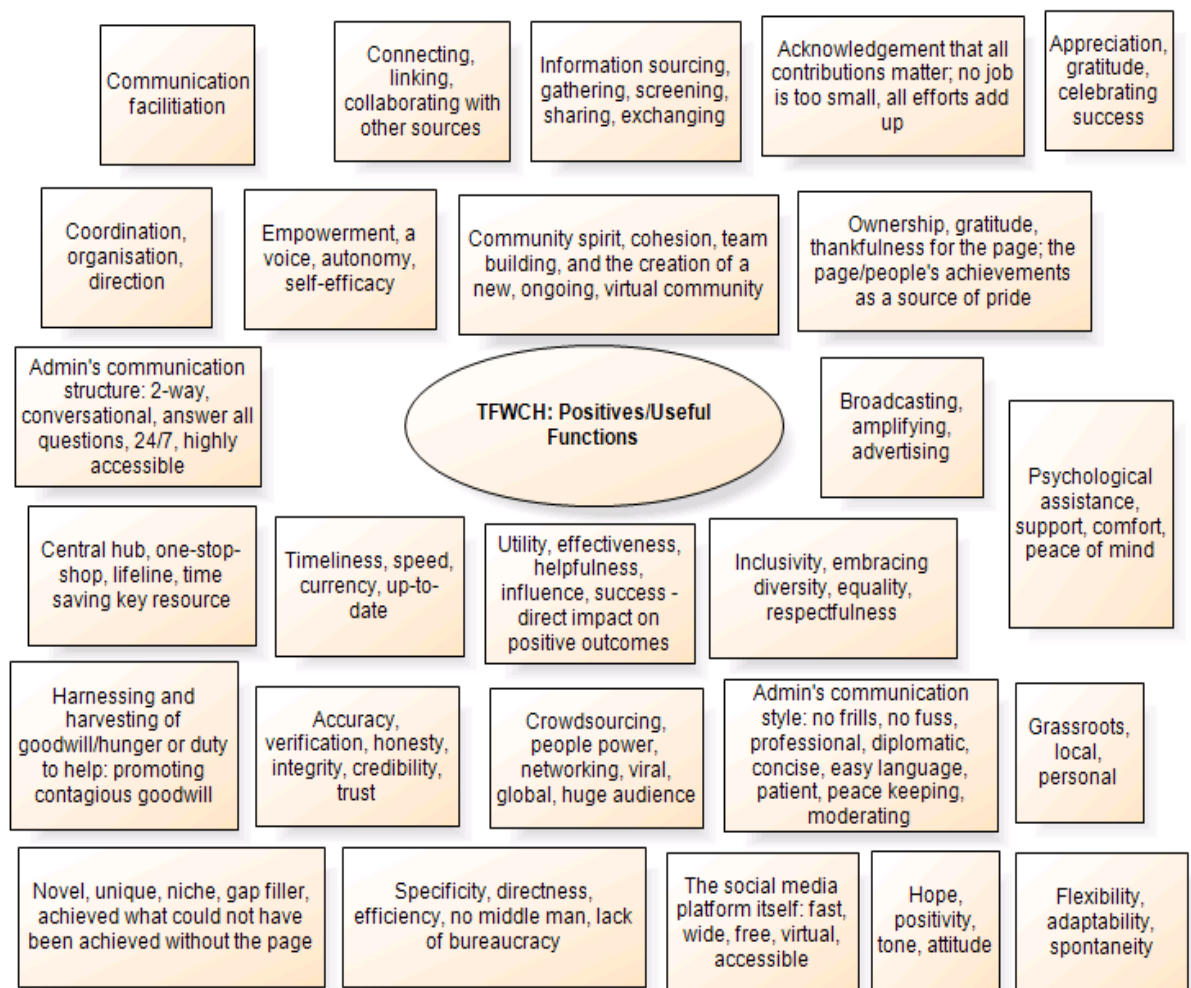


Figure 9. Qualitative Thematic Analysis 2 theme development: 'positives and functions of TFWCH'

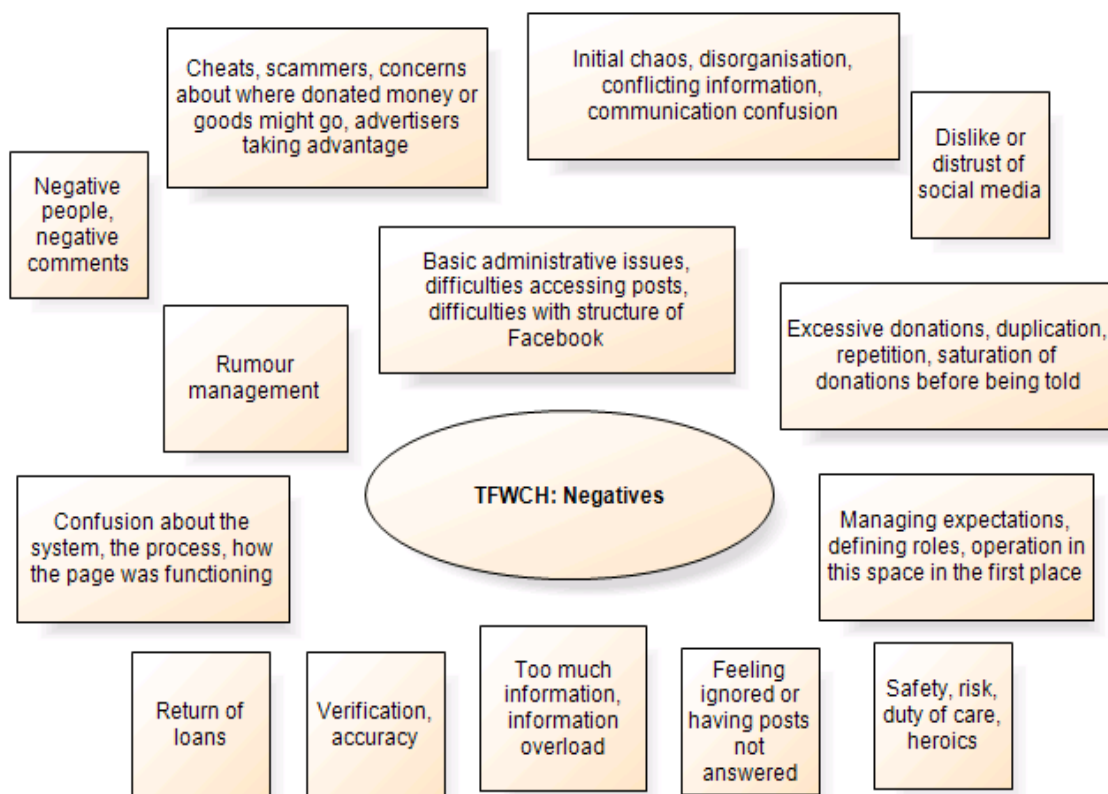


Figure 10. Qualitative Thematic Analysis 2 theme development: 'negatives of TFWCH'

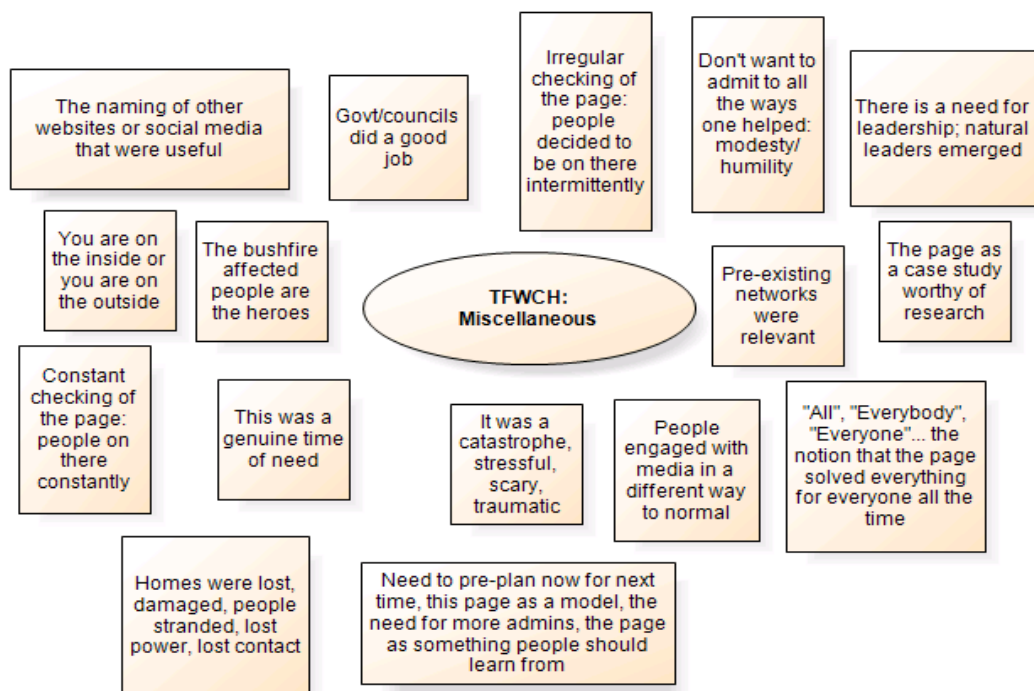


Figure 11. Qualitative Thematic Analysis 2 theme development: 'miscellaneous codes'

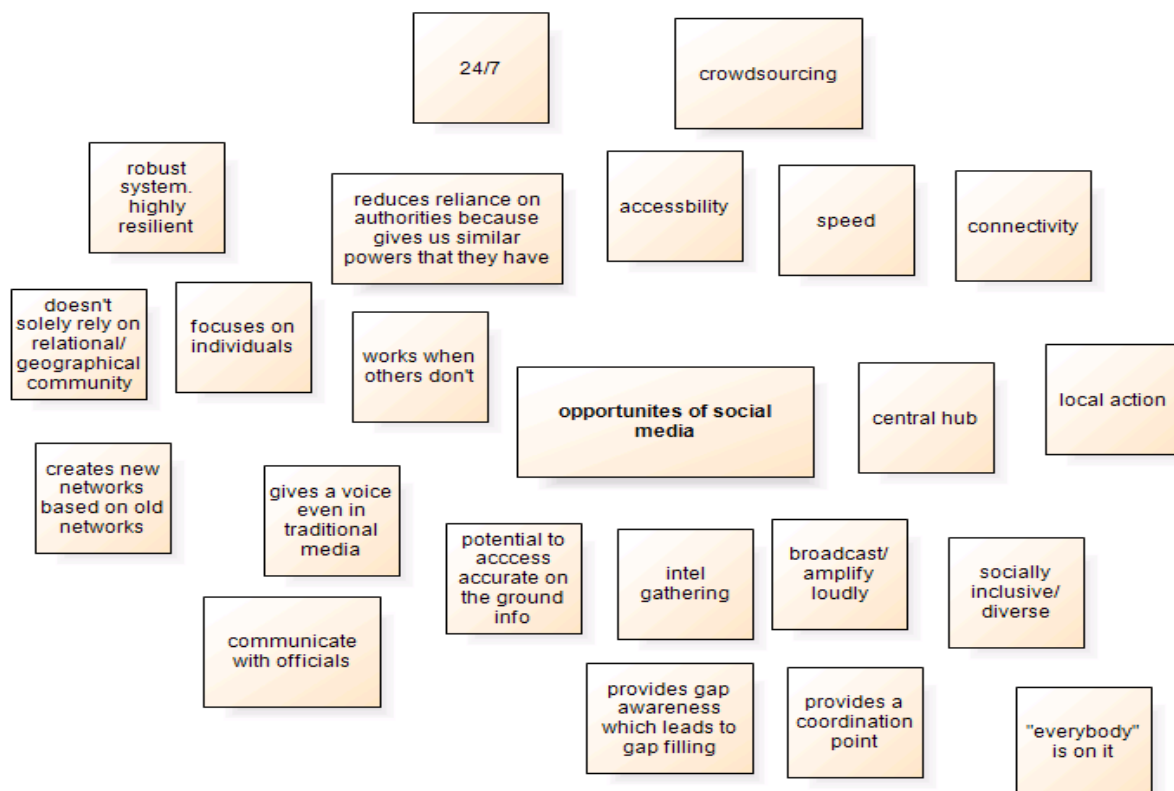


Figure 12. Qualitative Thematic Analysis 2 theme development: 'the opportunities of social media'

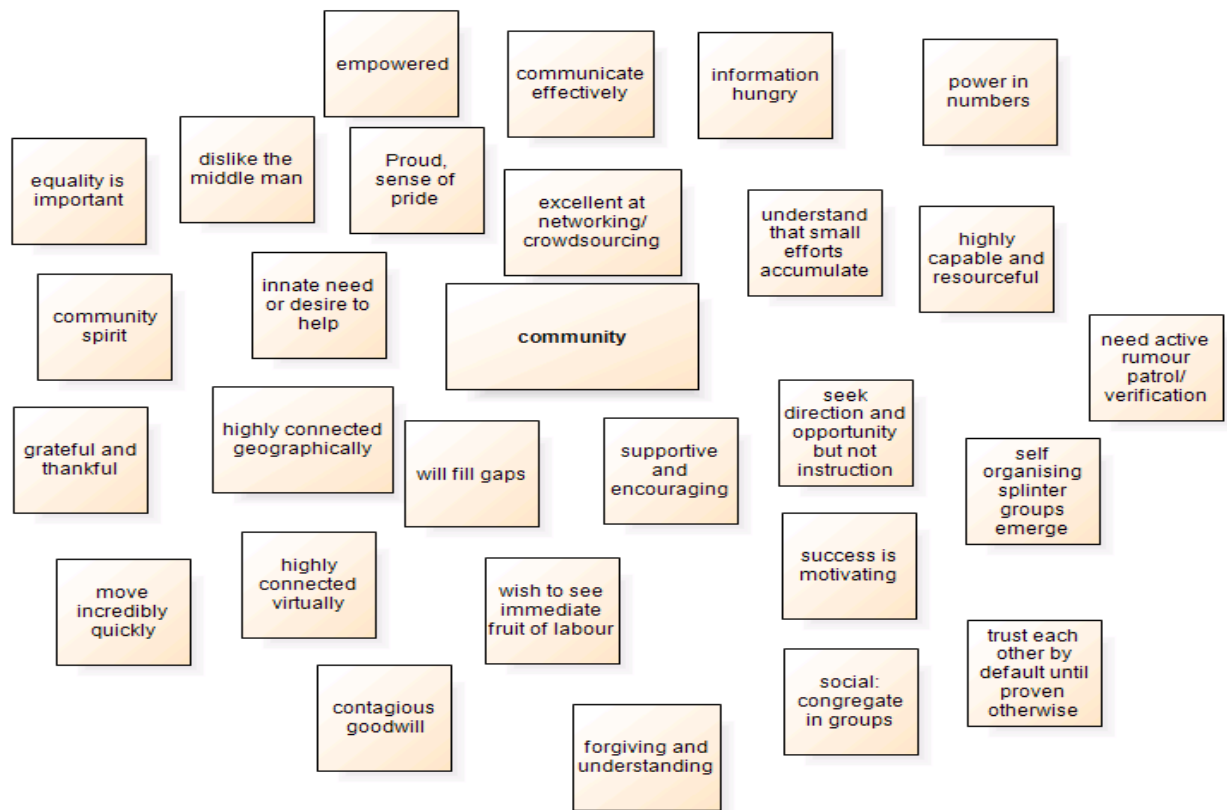


Figure 13. Qualitative Thematic Analysis 2 theme development: 'community aspects'



Figure 14. Qualitative Thematic Analysis 2 theme development: 'essential ingredients'

Table 17. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘the situation’

Overarching theme: ‘the situation’	
Key theme	Subordinate theme
The disaster was distressing	<i>The period was stressful. There was chaos</i>
	<i>I was emotional. I was stretched. People I care about are exhausted. I am overwhelmed</i>
	<i>The event was a terrible catastrophe. People went through hell</i>
	<i>It was a scary time. It was traumatic. It was a devastating event</i>
	<i>All the bad news in a disaster can be very confronting</i>
Communication was impossible or difficult	<i>It was hard to get information from the middle of the fires</i>
	<i>The power was down</i>
	<i>Early on in the disaster, Facebook and this page were one of my only sources of information</i>
	<i>Telecommunications were down, either completely or sometimes, or coverage was patchy</i>
There was separation and isolation	<i>People were separated. My family and I were separated</i>

	Overarching theme: ‘the situation’
Key theme	
	<i>Subordinate theme</i>
	<i>I got stuck on the outside</i>
	<i>I felt like I was stuck on the outside, looking in</i>
	<i>I was stuck on the inside; someone I care about was stuck on the inside. People were stranded. People were isolated</i>
	<i>When the roads were blocked not much was getting down, so boats was the only way</i>
	<i>The page was all about real people in real need</i>
	<i>No support was being given to those affected early on</i>
There were terrible consequences of the fires	
	<i>Houses were lost. Houses were damaged. We lost things. We lost everything. We had to defend our homes. We had to fight fires</i>
	<i>There was no running water for days</i>
	<i>Even though Blaze Aid were there to help, the expense of replacing fences has been huge</i>

Table 18. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘the foundations’

Overarching theme: ‘the foundations’
Key theme
<i>Subordinate theme</i>
People search for extensive information and accurate information during a disaster
<i>People are hungry for lots of information during a disaster</i>
<i>Having correct information is very important</i>
People want to help, and for a variety of reasons
<i>People genuinely wanted to help</i>
<i>I believe this was a collective effort by all Tasmanians and no one was trying to get hero status. They all just wanted to help</i>
<i>People were feeling the need to help. People really desperately want to help</i>
<i>I would help again in a heart beat</i>
<i>People feel the duty to help. They feel an obligation</i>
There are barriers to helping: not knowing how or fear of getting in the way
<i>People want to help but often don't know how</i>
<i>I often want to help but I don't want to get in the way</i>
People want to help in the most effective, fastest and personal way possible

Overarching theme: 'the foundations'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page was able to facilitate direct assistance and this appeals in a way that donating to an impersonal third party NGO does not</i>
	<i>There was a desire to find out specific details about what was needed where before actions were taken</i>
	<i>I wanted to be able to help in a way that would benefit immediately. People want to see immediate benefits</i>
Being able to help in ways that were direct and specific but flexible is key	
	<i>I believe people will donate more, or help more, and that it is more appealing, if they can do it directly, and see the results</i>
	<i>Giving to charities is not appealing due to the admin fees and money wastage</i>
	<i>People gave more when they knew it was going to go directly to those in need</i>
	<i>I did not volunteer with Volunteering Tasmania because I needed and wanted to stay flexible</i>
	<i>It is easier to tackle a problem when it is broken down into small parts, such as requesting a specific item like nappies or sunscreen. People felt they could help because they could address just one area of need rather than trying to address the whole</i>
Helping breeds helping	
	<i>Helping is infectious</i>
There are unique features of Tasmania that were relevant: community spirit and connectedness	
	<i>There is something unique about Tasmanian's willingness to help each other. People highly motivated to help their home state. There is a great community spirit</i>
	<i>Tasmanians are excellent at networking. People know people</i>

Overarching theme: 'the foundations'	
Key theme	
	<i>Subordinate theme</i>
Emotional responses and connections are created	
	<i>Hearing about the fires was devastating. We were so sad</i>
	<i>We all need each other in a disaster</i>
	<i>I believe disasters bring people together</i>
	<i>I was feeling helpless. People were feeling helpless. Feeling hopeless.</i>
There are gaps left in official responses that people want to fill	
	<i>Official responders are sometimes or often or always slow. Official responders do not have the means to act swiftly</i>
	<i>My past experiences with fires have been that getting information was hard. Contacting the authorities was nearly impossible in previous fires</i>
	<i>I understand red tape has a purpose but it really just hinders people getting what they need sometimes</i>
Communities are capable	
	<i>The community can and did get things done quickly.</i>
Having local knowledge is vital	
	<i>Having and acting on local knowledge is so important</i>
The medium of social media is highly appropriate for a disaster response	

Overarching theme: 'the foundations'	
Key theme	
	<i>Subordinate theme</i>
	<i>Technology enabled this to happen. The internet enabled this to happen. The technology was there</i>
	<i>The medium was free</i>
	<i>Social media was the fastest and most timely medium for communication. Social media itself as inherently an effective channel</i>

Table 19. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘positive outcomes of the page’

Overarching theme: ‘positive outcomes of the page’	
Key theme	
	<i>Subordinate theme</i>
The page carefully managed donations	
	<i>The page told us what was too much, or what was not needed</i>
	<i>The page ensured that only what was needed the most was donated, and at the correct times</i>
The page had a direct impact on people helping and people getting help	
	<i>Positive outcomes were achieved. General comment</i>
	<i>The page was able to help people with a broad range of problems. General comment</i>
	<i>The page directly influenced me assisting, helping, donating, or to get some help. I did something in the real world as a result of the page. I used the page to get things done</i>
The page was a success – it was helpful	
	<i>The page was a success. There was success. General comment</i>
	<i>The page was helpful; the page was great. It was a great tool. General comment</i>
The community response was massive; and bigger than we could know	
	<i>The community response was huge, overwhelming, very positive</i>
	<i>There are many people who probably received help or sourced help or gave help that we will never know about</i>

Overarching theme: 'positive outcomes of the page'
Key theme
<i>Subordinate theme</i>
<i>People and businesses, strangers, gave me money and goods to donate when they knew I was assisting the cause</i>
<i>People went out of their way to help</i>
Activities facilitated by the page would not have occurred had the page not existed
<i>The individual, targeted requests and offers would not have been possible without the page</i>
<i>Without the page I would not have been able to facilitate direct assistance, or get our donation through</i>
<i>We could not or would not have done this without you</i>
<i>Without this page, people from far away like elsewhere in Australia or overseas, would not have been able to contribute money, ideas, goods</i>
<i>Without TFWCH, I would not have known what was needed or where to take it, at least it would have been a lot harder to work all that out. Knowing what was needed meant we could get it down there</i>
<i>The page helped get supplies to places that were being left out</i>
<i>The page let people move a desire to help into actual action. Without the page, I just would not have had the outlet, means or know-how to get things done or to where they were needed. This page gave me an avenue to turn my desire into actual help</i>
Less people would have volunteered or assisted had this page not existed/less would have been achieved
<i>I think the page encouraged people to help when they normally would not have</i>
<i>I believe there are things people did to help, such as donating money, that they would not have done without this page</i>
<i>The page was vital in getting many fundraisers off the ground</i>

Overarching theme: 'positive outcomes of the page'	
Key theme	
	<i>Subordinate theme</i>
	<i>I think that people gave more help and donations and were so forthcoming and generous because of the page, and would have been less so without it</i>
	<i>Without the page I would not have had the confidence to volunteer</i>
	<i>I would not have volunteered without the page</i>
	<i>We would have done what we did anyway, but the page increased the exposure and therefore effectiveness of what we were doing</i>
	<i>Without the page we would not have been able to help our community as much as we did. Without the page I would not have been able to achieve so much</i>
People in the bush-fire affected areas would have been worse off without this page	
	<i>I think people would have died had it not been for this page</i>
	<i>Without the page, we would have had nothing</i>
	<i>Using information from the page enabled me to get family evacuated from the Peninsula</i>
	<i>I believe that with this page, the recovery was faster and more effective. TFWCH made a difference. People would have been worse off without it.</i>
Although we would have helped anyway, the page enabled more help/more effective help	
	<i>We as a service would have responded anyway, but the page really helped us to be able to know and do more</i>
	<i>The TFGA would have done what we did eventually anyway, but the page helped a lot over the first few days</i>

Overarching theme: 'positive outcomes of the page'
Key theme
<i>Subordinate theme</i>
<i>I would have been involved with or without this page, but it enabled me to do more, and to get the right things to the right people at the right time</i>
Responding was simply easier and more effective due to this page
<i>I was able to connect faster, more efficiently, and more directly with people in need thanks to this page</i>
<i>The page made it so much easier to get things done. So much easier to get the things that were needed and donate the things that were needed</i>
A community was created as people were brought together and worked together
<i>The page brought the nation together</i>
<i>It was wonderful seeing everybody work together. I felt like we were all working together</i>
<i>The disaster brought together people from different walks of life that would not normally come together. People who were strangers</i>
<i>At this time we all shared the one key common interest of wanting to help and this brought us all together</i>
<i>The page has brought people together, it has played a key role in bringing together people nationwide</i>
<i>The page brought the community together; it has united people into action. It is community oriented</i>
<i>I made some friends out of this process! I met some amazing people</i>
<i>The page created a community</i>
Created a sense of community spirit

Overarching theme: 'positive outcomes of the page'
Key theme
<i>Subordinate theme</i>
<i>You couldn't help but want to be a part of it all</i>
<i>The page created a sense of community spirit, it created a sense of community</i>
The page is worthy of research/a documentary/a book
<i>The page was so complex, and so interesting, with so many layers, and this whole thing is so interesting and worthy of research. This current research should help in the future</i>
<i>This page is a great case study of the possible positive uses of social media. Maybe even a documentary, or story, or book</i>
The page should be used as a model/a training tool
<i>The page should be used as a training tool. As a model. It should be learned from for future reference</i>
<i>The page as a great example of how one person can provide a way for people to come together</i>
The page as a good example of official and community collaboration
<i>I think this page was a great example of just how much can be achieved when official channels and grass roots groups collaborate and work together</i>
One of only a few information sources relied upon
<i>The page and the TFS were the only two sources relied upon at the exclusion of others, these were my two main sources</i>
<i>I sourced all my information from the news, the newspapers, and this site</i>
<i>I relied mainly on the page and the ABC</i>

Overarching theme: 'positive outcomes of the page'	
Key theme	
	<i>Subordinate theme</i>
	<i>I used the page and the ABC and the TFS but in honesty the page was so comprehensive it was all I needed</i>
Used exclusively: I felt like I didn't need any other sources other than this page	
	<i>Although other Facebook pages were used initially, they were abandoned by the user in favour of this page</i>
	<i>I didn't want to follow multiple pages and just get a duplication of information</i>
	<i>The page was the only one relied upon at the exclusion of other Facebook pages. I either purposely chose to stick with this one or didn't really hear or come across or go looking for other ones. This became the default page.</i>
Saved me time	
	<i>Using this page meant I did not have to spend hours on the phone to get information, it meant I was not calling up emergency services</i>
Everyone could help, wide variety of people did help	
	<i>Such a different variety of people contributed</i>
	<i>Everybody was able to help. Everyone was able to ask for help. The site was open to everyone. All ordinary folk could help. Even if you weren't rich.</i>
Reduced the burden on the emergency services; allowed different groups to focus on different tasks	
	<i>I feel that the page enabled the TFS to get on with fire stuff, and we could focus on other stuff</i>

Table 20. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘negative outcomes of the page’

Overarching theme: ‘negative outcomes of the page’
Key theme
<i>Subordinate theme</i>
There were some problems with excess or inappropriate donations
<i>People were donating unneeded or inappropriate or too many donations</i>
<i>People need to first find out what is needed before donating please</i>
<i>The page needed to be control donations, as things were getting donated after they were no longer needed. It could help in the future to have someone at the drop off points reporting back</i>
<i>There needed to be better connections and communications with the agencies, organisations, and departments. In regards to donations</i>
<i>Too many or inappropriate donations were causing extra work and making things difficult for the organisations on the ground</i>
<i>If too many donations and supplies come in to an area it affects local businesses, and that is what happened</i>
<i>The response was so overwhelming that organisations may have received too many donations sometimes</i>
<i>The boats to the peninsula got a bit out of control after the first day</i>
<i>The page could have provided greater leadership to control undesired helping behaviours</i>
<i>Money is better than goods</i>
<i>Because excess goods were delivered, people were taking things they were not entitled to, and could have bought from the local shop</i>
The page could have done more

Overarching theme: 'negative outcomes of the page'	
Key theme	
	<i>Subordinate theme</i>
	<i>There are probably people who will argue that the page did not do enough</i>
I wondered if I had been scammed	
	<i>I donated a lot of things to someone. But it left a sour taste in my mouth because they never said thank you. I wondered if it was a scam</i>
Reimbursement for volunteers should not happen	
	<i>Discussion around volunteers getting reimbursed was a bit souring</i>
	<i>Volunteers should not ask for reimbursement</i>
	<i>There was a risk that if one person asked for reimbursement, then everybody suddenly would, and where would it end</i>
	<i>Comparing the expectations around traditional volunteering reimbursement compared to this new volunteering, and how reimbursement should work</i>
	<i>Perhaps the way Mel's reimbursement from Telstra appeared on Facebook could have been done differently</i>
There were some unsafe or risky behaviours taking place	
	<i>I believe that some people on the boats were not being safe</i>
	<i>The safety of volunteers who might not really know what they are doing or are not equipped should really be prioritised</i>
	<i>There were risky or inappropriate behaviours taking place that TFWCH did not necessarily cause, but may have encouraged</i>
The page should not have existed at all. It should not have been operating in this space	

Overarching theme: 'negative outcomes of the page'
Key theme
<i>Subordinate theme</i>
<i>Because confusion can kill in times of emergency, the page should not have been providing information at this time</i>
<i>There should only be one source of information and that should be the TFS</i>
<i>The page should not have been operating and dabbling in this space at all</i>

Table 21. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme 'positive page attributes and processes'

Overarching theme: 'positive page attributes and processes'
Key theme
<i>Subordinate theme</i>
A source of information
<i>This page provided detailed information</i>
<i>The page as a source of information, as a provider of information</i>
<i>The page provided useful, helpful information</i>
A provider of so much information; including less salient information
<i>The extent of information was important for those involved</i>
<i>The page provided information across a broad range of topics, not just one specific area. It had a more holistic view in general</i>
<i>The page provided information about not only the 'important' stuff but about everything</i>
Provided relevant information
<i>The page provided relevant information</i>
<i>The admin screened out information that was not particularly useful or relevant</i>
Provider of accurate, reliable information. Verified/screened content, managed rumours
<i>The page was working to provide accurate information at the height of the crisis</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>I felt that the TFWCH page attempted to get the facts, the page researched before posting, it made sure information was correct first, it verified information</i>
	<i>The page provided accurate information and accurate answers to questions</i>
	<i>The page provided accurate information where possible, it tried, it did its best, mostly accurate information was supplied</i>
	<i>The page avoided gossip or heresy</i>
	<i>The page encouraged people to stick to the facts and not to spread unconfirmed news or rumours</i>
	<i>The admin was selective, and screened information before posting it</i>
	<i>The page corrected any errors or mistakes promptly</i>
	<i>The page addressed, squashed rumours</i>
	<i>Having the page set up so that only one Administrator could post reduced negativity or arguments, which is what happened on other pages</i>
Provider of unique information	
	<i>Other groups such as the media were also getting their information from this page</i>
	<i>This source gave me information that was not coming from anywhere else. The page gave me unique information. Information I could not get from anywhere else.</i>
	<i>The page gave me information about petrol. I had not been able to get information from the community meetings, the police, or anywhere else</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
<i>Subordinate theme</i>	
Created quickly, and spread fast	
<i>The page was set up quickly. It got started and worked on jobs quickly. It generated trust quickly. It brought people together quickly. It got a lot done in a very short space of time</i>	
<i>The page generated trust and then action as such a fast speed</i>	
<i>The page spread fast, it got a following quickly.</i>	
Delivered assistance rapidly	
<i>This page enabled actions such as offers of help, donations and service delivery to be completed fast. It enabled efficient responses. Results could be seen immediately. Support was immediate. We were able to respond FASTER.</i>	
<i>The page was almost too good. No sooner had I gathered things that had been requested that the page would say 'no more'</i>	
<i>Things were getting dealt with or answered or solved so fast that posts had a limited shelf life, sometimes just minutes</i>	
<i>People jumped in to help immediately whenever they could</i>	
Enabled constant, rapid exchange and relay of current information	
<i>Information was put on the site very quickly. Info was current and timely. Updates were almost instant. Updates were constant. There was constant activity on the page. There were regular updates</i>	
<i>The page was a useful medium for exchanging and relaying and finding information rapidly. The page is a fast communication tool.</i>	
Responses from Administrator were immediate	

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>Speediness and immediacy of responses is what made the page work. The response time to requests and messages was very fast. Mel answered questions rapidly</i>
Interactive, responsive and answered questions	
	<i>Questions were answered by Mel, or a frequent visitor to the page</i>
	<i>The page asked people what they needed</i>
	<i>The page listened</i>
	<i>Administrator answered questions, no matter how big, small, or 'stupid'</i>
	<i>This page was better than others such as the TFS because it was interactive</i>
Evolved over time/in response to feedback	
	<i>As events developed, the page grew more complex and more efficient. It was great to see it evolving</i>
	<i>The page was responsive to feedback and evolved rapidly in regards to handling the information management. The page was flexible and evolved as needed</i>
Personal, with a community feel	
	<i>I don't believe a formal charity could have run a page as successful as this, as this page provided a real person for you to talk to</i>
	<i>The beauty of the page was that we were dealing with a real person, not faceless government red tape</i>
	<i>The page had the vibe of a happy, generous, thriving community. It had a real community feel.</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page was all about real people in real need</i>
	<i>The page was able to facilitate direct assistance and this appeals in a way that donating to an impersonal third party NGO does not</i>
	<i>The page had a personal feel that we really appreciated. People did not feel intimidated and they felt they could contact you.</i>
Grassroots	
	<i>Information from this source was coming first hand, from people directly on the ground. The page was close to the action. It was local</i>
	<i>The page was working at the ground level. It had an on the ground focus</i>
The page as a useful way to communicate	
	<i>The page was a useful conduit for people to communicate</i>
	<i>General reference to communication</i>
	<i>The page was a useful medium for receiving messages</i>
A way for people to communicate between non-fire affected areas and from behind the fire front	
	<i>The page was a useful medium for getting messages out there both from the inside to the outside and from the outside to the inside</i>
	<i>The way I was using the page was to get information of it then pass it on to people in the area via phone, to pass it on to people who did not have access to the site</i>
	<i>The page as a useful medium for people to just stay in touch, to stay in contact</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
A way for people to communicate from behind the fire front	
	<i>The page was a useful medium for finding, making contact with or getting information about a loved one, friends, family, and community. A useful way for people to stay in touch in regards to their wellbeing</i>
	<i>The page as a way to communicate when other telecommunications were not working which is seen as extremely valuable and potentially lifesaving. For some people it was the only way</i>
Encouraged people to connect and to help	
	<i>The page encouraged people to consider helping if they had not yet, and to consider helping in ways they could</i>
	<i>The page played a role in encouraging people to connect, encouraging people to talk to each other</i>
Encouraging people to act, supportive natural leaders who emerged	
	<i>Played a role in encouraging people, general encouragement of effort</i>
	<i>Helped and encouraged natural leaders to emerge, who then got things done</i>
Inspiring	
	<i>Reading the posts and stories on the page was inspirational</i>
	<i>The site was an inspiration. General comment.</i>
Inspired and motivated people to act, and then to continue to act	

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page offered inspiration or motivation to help, and directly influenced someone's decision to act. It helped to mobilise them. It helped to galvanize them.</i>
	<i>Seeing the shared stories of success had a flow on effect and inspired even more assistance to flow</i>
	<i>The page encouraged people to help</i>
	<i>The page gained momentum as everyday people realised other everyday people were contributing and therefore they could too. It got people thinking, and inspired them to consider how they too could help</i>
	<i>I felt like if Mel could set up a page like this, then maybe I could help too.</i>
An instigator and a mobiliser, it provided direction	
	<i>The page got the ball rolling. It got things going</i>
	<i>By showing people how to get started, it helped them to get started</i>
	<i>The page gave a sense of direction, it gave a sense of purpose, a focus</i>
	<i>Having a focal point is vital to get a community of people working together. The page was the generation of this focal point.</i>
	<i>The page showed people how to help when they weren't sure how to get involved</i>
Intensively followed and patronised; with a big audience and a big reach	
	<i>Lots of my friends shared information from the page so it came up regularly in my newsfeed</i>
	<i>The audience and reach of the page was extensive. A lot of people were using the page.</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>Requests coming in were thick and fast and exhaustive</i>
	<i>Mel was under the pump. There was so much activity on the page. Mel was under a lot of pressure. Mel was handling a huge community of people</i>
	<i>It felt like there was always someone ready to respond to a request if someone else couldn't</i>
	<i>The page flowed with people's input</i>
	<i>The page went viral</i>
An effective problem solver	
	<i>Even with really hard jobs or tricky situations a solution was found</i>
	<i>The page became 'the' place to go to for problem solving</i>
Location was irrelevant. Even geographically distant people could help or get information. The page shrunk the world down.	
	<i>The page could get help from or give help to people world wide</i>
	<i>So much support came for those affected, and this support came from all ends of the state</i>
	<i>The page went global</i>
	<i>The page was a place for people statewide, nationwide and worldwide to connect</i>
	<i>The page let people, even if they were far away, offer words of sympathy, support, love, encouragement and praise</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page enabled people far away to keep up to date or source information. It got information to people all over the world.</i>
	<i>The page enabled people to help even if they weren't in the fire zone, had not been fire affected</i>
	<i>The page enabled people to help even if they weren't individually connected already. You could help remotely</i>
	<i>The page was a great resource to those of us not local to the fire areas</i>
	<i>The page enabled people far away to help out</i>
Brought the fires 'closer to home'; made them more personal	
	<i>The page made the fires closer, more personal, more immediate to me. I felt much closer to everyone affected.</i>
	<i>The page was able put human faces on the news, to make it real</i>
An advertiser or a promoter/supporter	
	<i>The page was a useful way for us to communicate to those in the affected areas what services we were offering, like an advertising service</i>
	<i>The page was a useful way to promote what we were trying to fundraise for, or the things we were trying to collect, like an advertising service</i>
	<i>We felt the TFWCH page supported us with what we were trying to achieve</i>
	<i>The page as a broadcaster or advertiser of the situation, the page as a way to drum up more support from elsewhere simply by advertising about what was going on</i>
A gap-filler	

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page filled gaps. It filled a vacuum. It filled a niche</i>
	<i>We were getting done a lot of what government should do, but is too slow at</i>
	<i>It was good to know the specifics about exactly what was needed and what was not needed, so that we could fill the gaps</i>
Provided options, a flexible way to help; new/unique ways to help	
	<i>Not being in Hobart, it was hard to offer hands on help so I helped in other ways</i>
	<i>The page provided opportunities for people to help. It gave lots of options. It provided a means for us to really help</i>
	<i>The page gave you ways to act and help if you happened to be in a position to</i>
	<i>I was shown ways I could help that I had not even thought possible before</i>
	<i>The page gave me alternate ways to help than just the normal ones, like the Red Cross</i>
	<i>The page opened up whole new avenues and ways to help. Opened up ways to help that are often denied</i>
	<i>I met other people along the way who were able to help because they weren't working. They were able to help with flexible jobs</i>
	<i>I appreciated the various links on the page so that you could go to the ones that held a particular interest for you and the ones you wanted to focus your efforts on</i>
	<i>The page enabled people to help in ways from big to small</i>
	<i>I was able to help in ways that suited my limited resources or capabilities, unique ways. I was limited in some way</i>

Overarching theme: ‘positive page attributes and processes’
Key theme
<i>Subordinate theme</i>
Helped people to not get in the way but to still be useful
<i>The page told us where to take out donations so that we did not get in the way, it showed us how to help in general without getting in the way</i>
<i>People want to help but it often causes more drama and headaches and chaos. This did not happen with this page</i>
Aimed for efficiency, maximum impact
<i>We did not seem to have too much duplication</i>
<i>The page helped us to deliver supplies where they were needed the most. Helped us to know what was needed the most.</i>
<i>The page helped people work out how they could help in the absolutely most helpful way possible with whatever they had on board at the time, how they could be the most effective</i>
A godsend
<i>A godsend, a lifeline</i>
A way to seek help
<i>The page as a useful medium for those in the affected area to get help with their rebuild</i>
<i>The page was a useful medium for requesting and receiving donations and emergency supplies. It highlighted areas of need.</i>
Helped us know what was specifically needed

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The specific requests were really good. The individual, targeted requests rather than just asking for general donations of stuff. This enabled my donations to be relevant and appropriate</i>
	<i>The page was a useful medium for helping people know what things were needed; what was required to assist. With information about how people could help. To ask for help. It informed about where to take donations</i>
	<i>The page provided direction so that help went where it was needed, and not more chaos was created</i>
	<i>The page was a useful way to help people to find ways and get organised to volunteer</i>
	<i>The page reminded people about the practical, logistical things that were needed on the ground. The things you wouldn't think of yourself</i>
A central forum for connecting directly. It was a place for people to share and meet needs, cutting out the middleman.	
	<i>The instant connection between people that was facilitated by the page ensured success</i>
	<i>I liked that the page enabled me to cut out the middleman. People were able to deal one-to-one</i>
	<i>The page was a useful medium for connecting people who were offering help with people who needed help. It was a place for people where individual needs for people could be shared and then met</i>
	<i>The page was a useful medium for people to offer their help directly</i>
Enabled communication with strangers	
	<i>Enabled strangers, who would not normally communicate, to get in touch and then communicate. It enabled people to have direct contact with people outside of their usual networks.</i>

Overarching theme: ‘positive page attributes and processes’	
Key theme	
	<i>Subordinate theme</i>
A central hub or forum or platform for people to connect	
	<i>The page was a useful conduit for sharing information. It was a good centralised platform.</i>
	<i>The page was a central place for all to connect</i>
	<i>The page brought people together in the one place. It was great to see people working together through a single source</i>
	<i>It was great we could just write on the page with where we were going and what we doing to help, to keep all the other helpers updated</i>
Socially inclusive, welcoming, and not an unequal hierarchy	
	<i>I did not feel a sense of hierarchy in power imbalance or inequality with the way Mel was running the page</i>
	<i>I was made to feel welcome to the page. Everybody was. Nobody was ignored.</i>
	<i>Administrator answered questions, no matter how big, small, or stupid</i>
	<i>The page was respectful to people of different backgrounds and could effectively communicate with people from different backgrounds</i>
Focused on all the different fires	
	<i>I appreciated that unlike the mainstream media, this page did not focus solely on Dunalley. It focused on other fires too. We felt ignored by the lack of attention</i>
A way to crowd source to solve problems/get things done/source information	
	<i>The page was a way to link people with information to people who needed that information.</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page was a useful medium for connecting with like-minded others in order to create a team, gather people or resources to get something achieved, this may have happened on actively or organically</i>
	<i>As soon as you factor in people's own networks outside of TFWCH, the reach of the page becomes enormous. If people couldn't source something, they knew people who could, or put the word out to their own contacts</i>
	<i>The page was a useful medium for people to see something on TFWCH, and then crowd source from within their own network to try to find solutions, or to send it on to people who might find it useful or relevant</i>
	<i>These links were happening over the page, such as posting information, someone else answering it, someone providing the good, someone delivering</i>
	<i>The page did not pretend or profess to know everything. It did not project as the gatekeeper of all information. It asked the people for clarification. Other people used it for clarifying information.</i>
	<i>The page as a conduit to ask for ideas, brainstorm, problem solve, try to come up with solutions</i>
Up-to-date	
	<i>The page kept people up to date. I felt like I was being kept up to date. The page was a source of updates for me.</i>
	<i>The page itself was up to date with what was going on. The page was a source of up to date information. No specific details given by participant.</i>
Provided feedback and progress reports	
	<i>Gave feedback when something had been achieved and finished, or if it still needed work. It gave progress reports</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
<i>Subordinate theme</i>	
Accessibility and availability: the page was available and updated 24/7	
<i>I could go to the page at any time and get an update on what was happening. Information was available all the time. I used the page to keep up to date.</i>	
<i>I felt like I was being kept up to date 24 hours a day. I felt the page went all night.</i>	
<i>Users noticed and appreciated that there were people willing to respond and to help 24 hours a day.</i>	
A way to stay informed, informative	
<i>The page was very informative. General comment</i>	
<i>The page was a useful conduit for keeping people informed. I felt well-informed thanks to the page.</i>	
<i>The page was a useful medium for exchanging and relaying and finding and asking for information</i>	
Covered a wide range of topics	
<i>The page provided updates on which properties had been impacted</i>	
<i>It was good that the page told both the good and bad stories</i>	
<i>The page helped people with updates about warnings</i>	
<i>The page helped inform people about fundraisers</i>	
<i>The page gave up to date information about where the fires were, with information on the fire situation</i>	

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The page provided information about the drop off points for donations</i>
	<i>The page provided information on how to seek relevant help from the government</i>
	<i>The page provided information about the status of people's home towns</i>
	<i>The page provided information about road closures</i>
	<i>The page gave me information on what businesses were open</i>
	<i>The page was interested in helping animals and providing care for animals</i>
	<i>The page was interested in assisting children</i>
	<i>The page helped me make a decision about returning to our property or not</i>
	<i>The page gave information about the evacuations</i>
A one-stop-shop	
	<i>I believe people have been using and watching this page more than the news</i>
	<i>The page as a central place for everything to take place was a really useful thing. Having everything in the one spot was very helpful. People knew they could come to the page and get everything they needed to know.</i>
	<i>The page seemed to cover everything. It felt like one-stop shop for everything. It had lots of information in the one place.</i>
	<i>Having all the information in the one spot so I didn't have to run around and look at other sites to try to keep updated was really good</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>I was pretty confident I did not need to look at other pages because I knew that if anyone else had information TFWCH would post it soon anyway</i>
	<i>I think the emergency agencies appreciated the one-stop-shop set up as they communicated with you with updates</i>
	<i>The page as a single source of truth at the height of the crisis</i>
	<i>If you kept an eye on the page, the information you needed would eventually come up</i>
Empowering, not controlling	
	<i>We felt in a position to help with some of the jobs you would normally expect the authorities to take care of</i>
	<i>The page said that I could help, not just that the authorities were helping</i>
	<i>The page made me feel like yes, I too could help</i>
	<i>I felt like anything was possible</i>
	<i>I think the fact that the page was so empowering for individuals is what made it work so well</i>
	<i>I appreciated the open and not guided communication. This openness meant everyone could pitch in</i>
	<i>The page made some suggestions about the needs that were posted but for the most part, just left it up to the readers to work out how they could or would respond</i>
	<i>The page did not issue orders or instructions. It just offered information and a few suggestions.</i>
	<i>I was not a spectator this time, the page enabled me to be part of the solution</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
Trustworthy	
	<i>I felt I could trust the information provided. I felt the page was trustworthy. The page engendered trust.</i>
	<i>The page had an honesty and an integrity that I trusted, this page was the most honest</i>
	<i>I joined the page because I had heard from others that it was the most up to date and the most honest</i>
Connector and linker to other pages and other sources of information	
	<i>The page encouraged access to other informative pages</i>
	<i>The page was directing questions to the most appropriate support or agency or Facebook page. It helped to do the direct dot joining</i>
	<i>I probably or definitely would not have known about some of the other good providers if it hadn't been for the page</i>
	<i>The page was a useful medium to provide other links to the users, it was great to cross reference</i>
Communicated clearly and concisely, and presented information accessibly	
	<i>The page provided clear and concise information</i>
	<i>I appreciated it that the important and urgent posts were clearly highlighted on the page</i>
	<i>Information was easy to find thanks to the central spread sheets and clear contact information</i>
	<i>It was easy to find information from the site if I wanted to find it again later</i>
	<i>Administrator ran the page in a way that it was accessible to the average person. The page was easy to access.</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>The way the information was then put into the new website was really handy and clear</i>
To the point, no frills, no red tape, no politics, no scare-mongering, no agenda	
	<i>The page was to the point and did not beat around the bush</i>
	<i>There was a lack of bureaucracy or red tape. Lack of complex processes, hoops, administrative levels and committees! A lack of connection to government enabled more to get done.</i>
	<i>The page was free of politics, political and bureaucratic waffle</i>
	<i>There was no scare mongering on this page like there was on others</i>
	<i>I appreciated that the page did not have a slant or an agenda, looking for the big story. It was factual and not sensationalised, unlike others like the Mercury or the TV news, who were</i>
	<i>The page got things done without frills or fuss. It was uncomplicated and sensible.</i>
Flexible	
	<i>I believe the flexibility of the page is what made it work so well</i>
Positive tone; people had good attitudes	
	<i>The page had a really positive tone</i>
	<i>There was not too much negativity on the page</i>
	<i>Facebook can get completely overrun by the negatives like rumours or negative comments. This page did not.</i>

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>Good attitudes even if help was no longer needed after having arrived, people were not selfish or demanding, they were kind and understanding in the face of lots of things</i>
	<i>People were generally encouraging on the page. There was a sense of positivity</i>
Played a peace keeping role	
	<i>The page handled negative responses, negative elements, successfully</i>
	<i>Administrator successfully managed the emotions of people using the page, she calmed people down</i>
Grounded people	
	<i>Kept people grounded, it kept things real</i>
Acknowledged people's efforts and thanked them	
	<i>I appreciated being thanked for what I had done, from either Mel or some other group I had worked for</i>
	<i>It was really good to see people getting acknowledged for what they had done with your updates</i>
	<i>The page played a role in praising people, and being appreciative for all that people had done</i>
	<i>Every offer and effort was appreciated</i>
	<i>The page made an effort to thank and appreciate people for all they had done, whose efforts would not have been recognised in the news otherwise</i>
Told stories	

Overarching theme: 'positive page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>I appreciated the story telling. Telling people's stories. Telling the inspiring stories. Telling the beautiful stories</i>
	<i>I appreciated the stories of the community, and I believe that was the niche of the page</i>
No job was too big or too small	
	<i>Everything was put out there, even if it is was big or small. The page dealt with small and big things.</i>
Respectful	
	<i>The page was respectful</i>
The page was a broadcaster or amplifier	
	<i>The page as a way to inform those on the outside about what was going on, tell them the real story, make them aware of the situation</i>
	<i>Without the page I would not have been able to be so inspired and in awe by the sorts of amazing things Tasmanians were doing for each other. I wouldn't have known.</i>
	<i>I would not have known what was going on down there if it weren't for this page, or at least I would have known a whole lot less. I think many people would have been left in the dark without the page.</i>
The page felt 'right'; it had been created for the right reasons and was attracting the right people	
	<i>It felt like the page was the right page, at the right time, run by the right person, with the right people following it</i>

Table 22. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘negative page attributes and processes’

Overarching theme: ‘negative page attributes and processes’	
Key theme	Subordinate theme
Having the page be so effective was frustrating	<i>It was a bit frustrating when you would find something you could help with and the next thing you know a post goes up saying it wasn't needed any more</i>
Some of the content on the page was frustrating and unnecessary	<i>It was a bit frustrating when people made suggestions without exploring the idea themselves first. Or if people kept asking the same questions. Repetition on the page was a bit annoying.</i>
	<i>All the thank you's and appreciation and other soft stuff was annoying and unnecessary</i>
	<i>Annoying, unnecessary, unneeded donations or requests clogged up the newsfeed a little bit</i>
I felt outnumbered/different	<i>The demographic using the page were mainly women and this made me feel uncomfortable</i>
More ‘inside information’ was needed	<i>Local, inside information from the affected areas was coming out, but it was limited</i>
	<i>Clearer information coming from the inside could have helped</i>
There were difficulties with accuracy and verification from the Administrator	

Overarching theme: 'negative page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>Initially, there was some inaccuracies in the information supplied</i>
	<i>Initially, information about what was needed was sketchy</i>
	<i>There was conflicting information being supplied on the page, that is, I was told one thing on the page but a different thing in the real world</i>
	<i>Please make sure information is correct before posting it</i>
There were difficulties with accuracy and verification from the users of the page	
	<i>Incorrect information appeared on the site from users</i>
	<i>Please make sure that information others are posting to the site is accurate, monitor what they are talking about</i>
	<i>The page could have been better if you screened what people wrote a little bit closer</i>
	<i>The page would be better if, in a perfect world, all comments were verified before being let on the site</i>
	<i>Information could have been verified a little bit more</i>
The page could have played a greater role in rumour management	
	<i>The page could or should have done more to address or squash rumours</i>
There was some negativity on the page	
	<i>Some posts were in bad taste or offensive. General comment</i>
Users should be blocked for bad behaviour	

Overarching theme: 'negative page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
	<i>People who post bad taste or negative things should be warned, and then blocked</i>
People should be discouraged from using the page for advertising	
	<i>The page could have been better if it did not allow blatant advertising please</i>
People who are doing the wrong thing should be named	
	<i>The page would have been better if it had reported those that had used the situation for their personal gain like the IGA</i>
Less regular/shorter posting would have been better	
	<i>There was too much information coming in to my newsfeed. I found it hard to keep up with the posts.</i>
	<i>The page could have been better if the posts were shorter. Some looked too long so I didn't read them</i>
	<i>The page would be better if the updates were not so regular. Maybe just three updates per day</i>
The organisation of the page made it hard to find content	
	<i>The page could be better if somehow Facebook could organise itself better. Posts and threads get lost so quickly. Sometimes it was hard to find follow-ups or keep track of the posts I was following.</i>
	<i>The page became confusing/hard to find posts. The page would have been better if it were somehow more organised</i>
I had confusion about how to use the page	
	<i>The page could be better if there was a clearer explanation on how to post information, how to find information, basically if I was taught better about how to operate the page and how it was functioning. I had some confusion about something</i>

Overarching theme: 'negative page attributes and processes'	
Key theme	
	<i>Subordinate theme</i>
It was frustrating when the Administrator/associate of the page did not answer my question	
	<i>I felt upset when the Administrator did not take the time to answer my question, or directed me elsewhere</i>
	<i>It would have been better to set this all up as a Yahoo Group. I did this but Mel did not get back to me.</i>
	<i>I did not see a post up about something I had requested to go up</i>
	<i>Sharon from the Helping Kids Register didn't get back to me</i>
The page should have provided 24 hour coverage	
	<i>People want 24-hour coverage. They felt the page did not provide 24-hour/day coverage and they would like to see this.</i>
Donations should have been delivered	
	<i>Bushfire-affected people should have had donations taken directly to them; not been expected to come and collect them</i>
All activities should have been confirmed with emergency services	
	<i>All actions and messages should be confirmed with emergency service organisations so that lives are not put at risk and secondary disasters are not created</i>
Record keeping should have taken place	
	<i>I have queries about how I might get my generator back, and how records were or can be kept</i>
	<i>Were records kept? Who does the record keeping? Should there have been record keeping?</i>

Overarching theme: 'negative page attributes and processes'

Key theme

Subordinate theme

The page should have differentiated between the different parts of the response and recovery

I feel that the page should have differentiated between the different parts of the disaster. That is, the fire and long term damage, and the short term cutting off of the Peninsula

Table 23. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme 'psychological state creation'

Overarching theme: 'psychological state creation'	
Key theme	Subordinate theme
Pride in the community	<p><i>Seeing all the activity on the page and seeing good people out there was great and made me feel proud to be Tasmanian, or human, or just part of this community. I feel proud of what we have achieved.</i></p> <p><i>It was delightful to see many of my friends on board doing their best to help</i></p>
Pride for making a difference	<p><i>I felt like I was a part of a team that was making a difference. It felt good to be a part of something that was so useful.</i></p> <p><i>We really felt like what we were doing was really making a difference</i></p>
Privileged	<p><i>It was a privilege to be a witness to this, and to be a part of it. I felt like I was a part of it.</i></p>
A sense of restored faith in humanity	<p><i>The page has given me newfound faith in humanity. It showed such a positive side of humanity. It has shown me that there are still so many people out there who care</i></p>
Felt could have done more/feeling useless	<p><i>We helped with something, and it was really the least we could do.</i></p>

Overarching theme: 'psychological state creation'
Key theme
Subordinate theme
<i>I felt a bit useless that I didn't have much money to contribute, that I couldn't help financially, that I couldn't physically volunteer</i>
<i>I guess I felt guilty that I didn't do more. I wish I could have done more. I would have loved to do more.</i>
Humility
<i>People being humble. Saying that others did more, they only did a little bit really.</i>
<i>I didn't help that much.</i>
<i>I am filling this in for a friend. He won't admit how much he has helped</i>
<i>I did what I did not for the thanks but for the community</i>
Heart-warmed by the level of support and involvement
<i>The level of support was incredible; it was truly heart-warming and humbling to see so many people stepping up to help. Especially when it is from strangers. It was touching to see the whole of Tasmania pull together.</i>
<i>It was delightful to see many of my friends on board doing their best to help</i>
<i>It was wonderful seeing the community all jump on board</i>
The page was a source of emotional support or general support, it was a comfort
<i>The page provided emotional support because I had an outlet, I could voice experiences, concerns, opinions, thanks, love, sympathy, praise</i>
<i>I think the community gained much comfort from being involved in a collaborative cause. It felt good to be a part of a supportive community.</i>

Overarching theme: 'psychological state creation'	
Key theme	
Subordinate theme	
	<i>The page gave physical and informational and emotional support to those who had been affected</i>
	<i>Feeling useful was really important to me as I am from the affected area but was stuck on the outside, while my friends were experiencing it all from the inside</i>
	<i>Reading about the goodness of strangers and seeing how everyone was helping took my mind off the fear of being isolated</i>
	<i>Although I couldn't communicate with my family reading the posts and information on the page helped me feel connected and informed</i>
	<i>Using the page had positive benefits psychologically. It was a comfort. It soothed our worries about our community, for friends or family, when we couldn't get back in or were on the outside and they were on the inside.</i>
	<i>There was sense of solidarity in the fact that others seemed to feel the need to help too</i>
	<i>It was comforting to know that those affected were being looked after, that there was an army out there working for them</i>
	<i>The page was a way to support those in the bushfire affected area who felt isolated for the first few days. It helped me to not feel left out or alone or abandoned or ignored. It was like a refuge.</i>
	<i>The page was important or absolutely vital to my psychological wellbeing when we were isolated</i>
	<i>I used the page and it's updates and information to sooth and calm my child so that he felt safe</i>
	<i>I felt the page gave people hope</i>
	<i>The page was around at a good time, when the reality of everything was just starting to sink in</i>
The page created positive affect, positive personal gains	

Overarching theme: 'psychological state creation'	
Key theme	
Subordinate theme	
	<i>It's been a great learning experience for me. I am grateful for that.</i>
	<i>People rallied around the school and we appreciated it</i>
	<i>I appreciated taking my kids to the Showground, teaching them how they too could help, to be able to show my kids the value of humanity</i>
Helping was rewarding or cathartic	
	<i>Perhaps you help because you feel guilty, or just because it feels good</i>
	<i>Helping had a positive impact on me. It made me feel good</i>
	<i>Being able to do something to actually help was cathartic</i>
	<i>Helping helps you to heal. Getting up and acting starts the healing process</i>
	<i>I found volunteering incredibly rewarding</i>
People felt heard	
	<i>I felt like people were supported in an unprecedented way, they had a voice that was heard. Without this page, they would not have been heard</i>
	<i>I appreciated that unlike the mainstream media, this page did not focus solely on Dunalley. It focused on other fires too. We felt ignored by the lack of attention</i>
Reduced feelings of helplessness	
	<i>The page made me feel less helpless when I was able to help</i>

	Overarching theme: 'psychological state creation'
Key theme	
	<i>Subordinate theme</i>
Inspiring	
	<i>Reading the posts and stories on the page was inspirational</i>
	<i>The site was an inspiration. General comment.</i>
Helped me realise that every little bit counts and that my contribution mattered	
	<i>We realised that it doesn't take much effort to reach out, help, and make a difference</i>
	<i>I was made to feel like my contribution, no matter how small, would help. The page made people feel like they could actually do something to help too and that the little things really can make a difference</i>
	<i>People recognised they could not do it all by themselves but that if they all came together as a whole community, then lots could get done</i>
	<i>I think people really realised that small donations and contributions do add up</i>
	<i>For me it started small, with a small effort or activity or donation, and then just grew from there</i>

Table 24. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘Administrator attributes’

Overarching theme: ‘Administrator attributes’	
Key theme over	
Subordinate theme	
Had credibility and agency	
	<i>Mel had agency. She had power. She had connections that meant things could get done</i>
	<i>Mel had good connection with official bodies and direct communication with them. This added to the credibility of the page</i>
Supportive, positive and encouraging	
	<i>Communication by the Administrator was positive; the page was a generally positive page. The page was supportive and had a can-do attitude</i>
	<i>The page had a really positive tone</i>
	<i>Mel gave us specific and personal messages of encouragement and appreciation which was hugely appreciated and renewed our vigour to help</i>
Personable, sensitive and compassionate	
	<i>The Administrator cared. She was considerate. She was empathetic. She was compassionate</i>
	<i>Communication by the Administrator was sensitive</i>
	<i>Mel was pleasant, approachable, friendly, kind</i>
Courageous	
	<i>Mel was courageous</i>

Overarching theme: ‘Administrator attributes’
Key theme over
<i>Subordinate theme</i>
Translated and deciphered information for users
<i>The Administrator played a role in translating information for people, or deciphering it for them</i>
Communicated in plain English
<i>Communication by the Administrator was in plain English, simply, basically</i>
Remained calm, patient, and firm
<i>The Administrator was calm and patient and level-headed</i>
<i>The Administrator was firm</i>
<i>The Administrator was not alarmist</i>
Organised, systematic, specific, relevant
<i>Mel was organised and systematic</i>
<i>The Administrator forwarded on messages to me that were relevant so I could get things done</i>
<i>It was good that you were the only one posting as often the comments go beyond the issue itself and waste time. These were confined thanks to you being the only Administrator</i>
<i>Mel delegated well to key helpers</i>
Intelligent, knowledgeable and capable

Overarching theme: 'Administrator attributes'	
Key theme over	
Subordinate theme	
	<i>The Administrator's skills in dealing with traumatised and stressed people set her apart</i>
	<i>Effective facilitation of an initiative like this requires a high level of emotional intelligence, plus organisational, communication and technical skills which Mel had</i>
	<i>The Administrator was intelligent</i>
The Administrator had no agenda	
	<i>Administrator had heart in the right place and it was not about personal gain. She was humble and genuine.</i>
	<i>The Administrator was not publicity-seeking</i>
	<i>I was motivated to follow this page because it was done selflessly and for no personal gain other than the Administrator wanted to help</i>
Demonstrated leadership	
	<i>The page as a great example of how one person can provide a way for people to come together</i>
	<i>Mel was the leader, she as at the helm of it all</i>
Demonstrated good rational judgment and decision making skills	
	<i>Communication by the Administrator was rational, based on reason</i>
	<i>The Administrator showed excellent judgment at all times when making decisions. She used common sense</i>
Was a vital ingredient	

Overarching theme: ‘Administrator attributes’
Key theme over
<i>Subordinate theme</i>
<i>I believe that without this particular Administrator at the helm, the page could have become very haphazard and chaotic, and even that lives could have been lost</i>
<i>I believe that the Administrator was the single biggest factor in the success of the page</i>
Motivational
<i>The Administrator had an ability to motivate people</i>
<i>Mel made people give a damn</i>
Was under pressure, handling a huge amount
<i>Mel was under the pump. There was so much activity on the page. Mel was under a lot of pressure. Mel was handling a huge community of people</i>
<i>The Administrator coordinated many things</i>
Performed well for a novice
<i>Considering the Administrator had no previous experience with disaster management this was an amazing job</i>
Made a sustained effort, and put a lot of work into the page
<i>Awe that one person set this up and has been able to continue it for so long</i>
<i>Recognition that a lot of work went into the page by the Administrator</i>
<i>I wonder if users of the site realise how much work Mel put into it</i>

Overarching theme: ‘Administrator attributes’
Key theme over
<i>Subordinate theme</i>
<i>Mel and the page have been continuing for so long</i>
Constantly available and present; dedicated
<i>The Administrator manned the page constantly. She constantly monitored the page.</i>
<i>Mel was juggling the page along with her own commitments</i>
<i>The Administrator was selfless and put in the time</i>
<i>Mel showed generosity by running the page</i>
<i>The Administrator made a tireless effort. Dedicated. This was important to the success of the page.</i>
Diplomatic
<i>Having an Administrator who was positive, diplomatic, sensitive set this page apart from others</i>
<i>Communication by the Administrator was diplomatic</i>
Professional and consistent
<i>The Administrator ran the page professionally.</i>
<i>The page provided a consistent service, which continued to meet a high standard.</i>
<i>Even though things were probably chaotic behind the scenes, things seemed to run really smoothly</i>
Made a few mistakes

Overarching theme: 'Administrator attributes'

Key theme over

Subordinate theme

At one point the Administrator made a suggestion that was just plain stupid, which was withdrawn

Table 25. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme 'the page as comparative and superlative'

Overarching theme: 'the page as comparative and superlative'	
Key theme	
Subordinate theme	
The largest following, more users	
	<i>I believe people have been using and watching this page more than the news</i>
	<i>The page was more patronized than other pages. It was the most popular. So many people were using the page</i>
More accessible	
	<i>This source was more accessible than other sources</i>
	<i>I don't believe a formal charity could have run a page as successful as this, as this page provided a real person for you to talk to</i>
	<i>The page was more accessible than things like the larger charity organisations</i>
More coordinated	
	<i>The page was more coordinated than almost all other pages</i>
Faster	
	<i>Information was available quicker through this source than other sources. This source was particularly efficient. This source had information first. This source was the most up to date. I found this source 'better' than others sources.</i>
Provided more information	
	<i>Other groups such as the media were also getting their information from this page</i>

Overarching theme: ‘the page as comparative and superlative’
Key theme
<i>Subordinate theme</i>
<i>The TFS and other authorities kept repeating the same information. This page gave more information</i>
<i>I liked this site because it has so much more information and or faster information on it than other sources such as the TFS website or other Facebook pages</i>
More accurate
<i>The page was more accurate than other sources</i>
More relevant
<i>The page was more relevant than other sources</i>
Contributed more to community spirit and pride
<i>I feel this page contributed more to make us feel proud and a part of this community than any other incentive</i>
Better or the best
<i>This page was better, or the best. General comment</i>
The most up-to-date
<i>I joined the page because I had heard from others that it was the most up to date and the most honest</i>
Better-quality information
<i>This page provided better information than what was being provided by the official sources</i>

Overarching theme: 'the page as comparative and superlative'	
Key theme	
<i>Subordinate theme</i>	
More personal	
<i>This source was more personal, more heart centered than other sources</i>	
More organised	
<i>The page was organised. It also seemed more organised than other pages</i>	
More interactive	
<i>This page was better than others such as the TFS because it was interactive</i>	
The most honest and trustworthy	
<i>The page had an honesty and an integrity that I trusted, this page was the most honest</i>	
<i>I joined the page because I had heard from others that it was the most up to date and the most honest</i>	

Table 26. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘gratitude and praise’

Overarching theme: ‘gratitude and praise’	
Key theme	Subordinate theme
Praise, positive feedback, appreciation	<p><i>Generally gushy, positive, commending language and comments about the page in general</i></p> <p><i>Direct positive feedback or appreciation</i></p> <p><i>Congratulations to Mel and the team</i></p> <p><i>Mel deserves accolades, medals, recognition</i></p> <p><i>The page was a good incentive, initiative, idea</i></p> <p><i>The page did not need any changes or improvements</i></p> <p><i>Mel did a good job, well done</i></p>
Gratitude for the page’s existence, actions and longevity	<p><i>Thank you Mel, thank you team, thank you all involved</i></p> <p><i>It was good that Mel even started the page in the first place</i></p> <p><i>It was great that this page was even there at all</i></p>

Overarching theme: 'gratitude and praise'
Key theme
<i>Subordinate theme</i>
<i>The page is still ongoing and getting a lot of support and response, even 5 weeks down the track, which is good because usually interest wanes. For those on the outside, they can so quickly forget what has happened. The mainstream media forgets</i>
<i>The page was around at a good time, when the reality of everything was just starting to sink in</i>
<i>There is a desire for the page to keep going, please</i>
<i>I predict the page will be around for many more summers</i>

Table 27. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘other pages: positives’

Overarching theme: ‘other pages: positives’
Key theme
<i>Subordinate theme</i>
The Dodges Ferry Facebook page was excellent
<i>The Dodges Ferry Facebook page was great</i>
<i>One page was really important because it was about real people from our local community out there protecting lives and property, not some nameless emergency service</i>
Other pages did collaborate
<i>Other good pages did refer to TFWCH to avoid duplication</i>
Information from my friend’s Facebook accounts was useful
<i>Another source of good information for me was the walls of my friend's Facebook pages</i>
The Fair Dinkum page was useful
<i>The Fair Dinkum one was fine but much smaller</i>
<i>The Fair Dinkum page was doing good things</i>
The Pay it Forward page was useful
<i>The Pay it Forward page was good. It was useful.</i>
Other pages/sites followed

Overarching theme: 'other pages: positives'	
Key theme	
Subordinate theme	
<i>Tasmanian Speed Cameras, Accidents, Traffic Delays and Road Works Facebook page</i>	
<i>Dodges Ferry Fire Brigade Facebook page</i>	
<i>Tasmanian Animal Assist Page – Tasmanian Bushfires 2013 Facebook page</i>	
<i>Tasmanian Lost Pet Register Facebook page</i>	
<i>Tasmania Fire Service website</i>	<i>Dunalley Primary School website</i>
<i>ABC website</i>	<i>Port Arthur website</i>
<i>Pay it Forward Facebook page</i>	<i>Bureau of Meteorology website</i>
<i>Scouts Tasmania Facebook page</i>	<i>Convoy of Hope Tasmania Facebook page</i>
<i>Fair Dinkum Clean Up Facebook page</i>	<i>RSPCA Facebook page</i>
<i>AHVEC Facebook page</i>	<i>Books for Dunalley Primary Facebook page</i>
<i>Kimberley's Pet Taxi Facebook page</i>	<i>Dunalley Neighbourhood House Facebook page</i>
<i>Tassie Craft Donations Facebook page</i>	<i>Nubeena Community Garden Facebook page</i>
<i>Emergency Aus. app</i>	<i>Can we help? - Tasmania Facebook page</i>
<i>Launceston Bush Fire Appeal Facebook page</i>	<i>Dunalley Fuel Fund fundraising website</i>
<i>Helping Kids Register Facebook page</i>	<i>Tasmania Bushfire Information Facebook page</i>

Overarching theme: 'other pages: positives'	
Key theme	
<i>Subordinate theme</i>	
<i>Heart FM Facebook page</i>	<i>TFWCH Boxes of Caring Facebook page</i>
<i>SES Facebook page/website</i>	<i>Rebecca White MPs Facebook page</i>
<i>SEA FM Facebook page</i>	<i>Department of Premier and Cabinet website</i>

Table 28. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘other pages: negatives’

Overarching theme: ‘other pages: negatives’
Key theme
Subordinate theme
Other pages should have deferred to this one to reduce duplication
<i>I think other pages should have teamed up with you or deferred to you to avoid repetition and dilution. Having more than one page is confusing. Copycat sites or the division of likes is not a good thing.</i>
Having an Administrator with their own agenda let another page/other pages down
<i>Having an Administrator who is not focused on themselves, or had own agenda, or were doing it for their own gain, is important, and other pages did not succeed with this which impact the success of their page</i>
Having an Administrator who was not dedicated let another page/other pages down
<i>Having a dedicated Administrator is vital, and other pages that lacked this did not succeed</i>
Lacking a constantly present Administrator let another page/other pages down
<i>Having an Administrator that was constantly there and gave immediate feedback was vital, and other pages did not have this</i>
Lacking current or accurate information and regular updates let another page/other pages down
<i>Information found from other sources was not correct</i>
<i>Having current information and regular updates is vital, and other pages or sites that did not have this were not as useful.</i>
Having an Administrator with poor communication skills let another page/other pages down

Overarching theme: 'other pages: negatives'	
Key theme	
Subordinate theme	
Having an Administrator with less developed communication skills was problematic for other pages	
Having an Administrator that did not want to collaborate let another page/other pages down	
Another page's Administrator scorned me when I suggested they team up with TFWCH	
Having an Administrator who lost interest when the novelty wears off let another page/other pages down	
Other pages were good but when the novelty wore off for the Administrator they did not stick around, unlike this page	
Other pages became negative and argumentative	
I saw other pages which had posts that got messy, negative, argumentative	
Having the page set up so that only one Administrator could post reduced negativity or arguments, which is what happened on other pages	
Another page became racist	
I saw a page fall down after it got racist which was such a shame	
Other pages did not give progress reports/closure	
Closure is really important. We want progress reports and updates. It is really great to see progress. I liked following the progress on the page. Other pages did not do this	
Being disorganised let another page/other pages down	
Pages that were not organised fell down	

Overarching theme: 'other pages: negatives'	
Key theme	
<i>Subordinate theme</i>	
Other pages were scare mongering	
<i>There was no scare mongering on this page like there was on others</i>	
Other pages operated in a generally poor manner	
<i>There was a page that did not reply, did not give closure, no feedback, no organisation, drama queens, took on too much, no place to take donations, complained etc.</i>	
<i>The [...] page was not good. They promised so much and did not deliver.</i>	

Table 29. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘the official response: positives’

Overarching theme: ‘the official response: positives’	
Key theme	
	<i>Subordinate theme</i>
The Council was well prepared for the evacuees	
	<i>The Hobart City Council had most things covered for those arriving via the ferries, which was great</i>
The boats evacuating people were appreciated	
	<i>I appreciated the assistance from the boats in Nubeena evacuating people (unknown which boats being referred to)</i>
The TFS website was helpful	
	<i>The TFS website provides correct, accurate updates, TFS was good. TFS was helpful.</i>

Table 30. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘the official response: negatives’

Overarching theme: ‘the official response: negatives’
Key theme
<i>Subordinate theme</i>
The school was rebuilt too quickly
<i>Concerns raised about how quickly the school was rebuilt</i>
Burn offs should have happened prior
<i>Hippies shouldn't be stopping controlled burn offs</i>
The official response by the government was not good enough, too slow, and was useless
<i>Politicians wasted money on things like expensive fly in photo opportunities</i>
<i>Because the government and grazier groups were not as well informed, they were too slow in giving us directions as to which farmers were the most in need</i>
<i>No support was being given to those affected early on</i>
<i>Disappointment that it took a seeming random stranger to do this job, which should have been being done already by the official responders</i>
<i>It was hard to get quick answers from agencies.</i>
<i>The government should have had an effective social media strategy and hopefully will before the next event</i>
<i>There was not enough government coordination of what was happening or coordinating to get information out there</i>
<i>Government communication was useless</i>

Overarching theme: 'the official response: negatives'	
Key theme	
	<i>Subordinate theme</i>
	<i>The TFGA would have done what we did eventually anyway, but the page helped a lot over the first few days</i>
	<i>The official response was too slow, or it seemed like there was no official response. It took time for the official responders to get organised.</i>
People were claiming benefits they weren't entitled to	
	<i>It's important to make sure people don't abuse the system and get given what they don't deserve. I came across people who constantly had their hand out who really should not have.</i>
The SES emptied our shop of supplies and left us with nothing	
	<i>The SES emptied our local shop to take the supplies elsewhere and they left us with nothing</i>
The main stream media were too sensationalised; always had an agenda	
	<i>I appreciated that the page did not have a slant or an agenda, looking for the big story. It was factual and not sensationalised, unlike others like the Mercury or the TV news, who were</i>
Concerns about the efficacy of donating to big charities	
	<i>There are often concerns voiced about where your money goes when you donate it to a charity</i>
	<i>Concerns about where exactly my donated goods to Vinnie's, or other organisations, actually go to</i>
	<i>Concerns about how fundraised money that doesn't go through a charity is handed out.</i>
We were unfairly overlooked for relief funds	
	<i>We feel like we have been overlooked in the emergency response because we didn't lose any property, even though we lost lots of other stuff</i>

	Overarching theme: ‘the official response: negatives’
Key theme	
	<i>Subordinate theme</i>
	<i>like fencing and animal feed</i>
We felt ignored by the mainstream media	
	<i>I appreciated that unlike the mainstream media, this page did not focus solely on Dunalley. It focused on other fires too. We felt ignored by the lack of attention</i>
	<i>The media did not give Murdunna, or indeed other places other than Dunalley, much of a mention</i>
Coverage by the ABC was not 24/7	
	<i>At midnight on the biggest day of the fires ABC switched to mainland coverage after midnight.</i>
The TFS was lacking	
	<i>The TFS page does not provide enough specific detail about the fire location. The TFS page does not provide enough detail full-stop</i>
	<i>The TFS and other authorities kept repeating the same information. This page gave more information</i>
	<i>The TFS website is so hard to use</i>
	<i>The TFS page is very clinical</i>
	<i>The TFS page does not provide enough fine details</i>
Donations to Vinnie’s were chaotic	
	<i>I helped out at the Showgrounds but Vinnie’s were drowning in donations and it was too disorganised and overcrowded for me</i>

Overarching theme: 'the official response: negatives'	
Key theme	
	<i>Subordinate theme</i>
	<i>There seemed to be a lot of people dropping off junk at the Showgrounds</i>
Information provided was generic and not detailed enough	
	<i>Typical support services were generic and repetitive, they did not provide the details</i>
	<i>The ABC was not reporting about what was needed or where help needed to go. In fact no other official groups were telling us how we could help other than cash donations</i>
There were discrepancies in volunteering requirements and communication	
	<i>It is upsetting putting your name down to volunteer, not being contacted, but then on TV they say they are looking for volunteers</i>
	<i>Lots of charities were saying they didn't need volunteers or that you had to register. But people directly on the ground would confirm that more were needed and we should just arrive which is exactly what I did</i>
Acceptance and usage of social media/TFWCH was too slow	
	<i>Official groups like the TFS and Tasmania Police needed to realise earlier the benefits of the FB page</i>
	<i>There was a bit of a head in the sand approach by those not completely aware of the power of social media</i>
	<i>I am a fire fighter and could have helped with information but was restricted. I was unsure of the early legitimacy and connection to the TFS</i>

Table 31. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘contributions’

Overarching theme: ‘contributions’	
Key theme	
	<i>Subordinate theme</i>
I contributed to the response and recovery	
	<i>Description of a donation made, or organised, or discount services or goods offered</i>
	<i>Helped coordinate in the real world, volunteered time somewhere, gave a talk or made an appearance, active out there in the field, created a collection or drop off point</i>
	<i>Emailed or phoned others in order to drum up donations, prayers, support, or shared information or networked on line for same goals, prayed, made a video to raise awareness</i>
	<i>Created or attended a fundraiser, event, thank you event, collecting money, stickers</i>
	<i>Helped with animals, pets or wildlife</i>
	<i>Helped a family, tourist, affected individual, staff member, directly</i>
	<i>Helped with boats, moving people, moving things in and out of the area</i>
	<i>Provided a service in the affected area</i>
	<i>Organised teachers to help create resources for new Dunalley Primary, helped with Dunalley Primary</i>
	<i>Helped move things for Vinnies at the Showgrounds or in Launceston, assisted them in some way other than giving donations</i>

	Overarching theme: 'contributions'
Key theme	
	<i>Subordinate theme</i>
	<i>Helped with craft</i>
	<i>Volunteer Fire Fighter, assisted with fire fighting</i>
	<i>Involved in garden restoration, rebuilding the natural environment</i>
	<i>Went and helped physically, manually</i>
	<i>Boosted economy by being a local tourist</i>
	<i>Helped Mel in the background with administration</i>
	<i>Helped other people who were organising central things such as care packages</i>
	<i>Worked to keep information on the page current and useful</i>
	<i>I was unable to donate money but I tried to help in different ways</i>

Table 32. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme 'page usage'

Overarching theme: 'page usage'	
Key theme	
	<i>Subordinate theme</i>
Frequency of usage varied	
	<i>The way I was using the page was to just check it a few times a day, and find a job I could do</i>
	<i>The way I used the page was that I left it (unliked it) and then came back to it when I wanted to</i>
	<i>The way I was using the page was that I was following it constantly. I was on it continuously.</i>
	<i>I was on the page constantly initially, but now I am not on there as constantly</i>
The page was used for the purpose of information liaison	
	<i>The way I was using the page was to help people find lost information. I was scroll back through and link people up with the information I had seen that they needed.</i>
	<i>The way I was using the page was to get information from the area then pass it on to TFWCH about what was needed</i>
	<i>The way I was using the page was to keep my mum informed and source things for her until she could get out of the affected area, to generally help a loved one or friend</i>
	<i>I helped answer other people's questions on the page</i>
	<i>I used information from the page to help other people find loved ones missing in the fires</i>

Overarching theme: 'page usage'	
Key theme	
	<i>Subordinate theme</i>
	<i>The way I was using the page was to get information off it then pass it on to people in the area via phone, to pass it on to people who did not have access to the site</i>
	<i>The way I was using the page was getting information on road closures then passing it on to people as they came through my servo. So I was getting info off the page and using it in the real world</i>
The page was used for the purpose of searching for ways to help	
	<i>The way I was using the page was to just troll it in order to access information, to see what ways there were for me to help</i>
	<i>We waited until a post came up that we could help with, and then we did. We looked out for things that we could do</i>
	<i>The way I was using the page was finding places in my area that I could help out</i>
The page was used for the purpose of broadcasting	
	<i>I shared information online for you from the TFWCH page. I believe this made a difference. I spread the word about the page.</i>

Table 33. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme ‘social media: positives and negatives’

Overarching theme: ‘social media: positives and negatives’	
Key theme	Subordinate theme
The medium itself was an excellent format for this type of response	<p><i>Using social media was a good medium for me – being virtual, I could follow conversations but still be separate. This was important as I was already emotionally stretched</i></p> <p><i>Being a Facebook page was a good idea. This was a good way to do all of this, using Facebook. Facebook was a good, easy way. Good it was a public site. Good it was a highly visible format.</i></p>
Prime example of social media at its best, as something positive	<p><i>The page was a good example of the advantageous uses of social media. There are benefits to using social media and this page tapped into them.</i></p> <p><i>Social media can be good and powerful. This was an example of social media at its best</i></p>
Social media was used in a way I had not seen before; this was a unique disaster response	<p><i>I have never seen Facebook put to such good use like this before. I have never seen it used in this way. It was my first real look at just how social media can work for good.</i></p> <p><i>I believe this may be the first time Facebook has been used like this to coordinate in an emergency before</i></p>
Social media still had its downfalls and negatives	<p><i>There are however some good examples of social media not being used for good, such as with the shop rumour or looting rumours</i></p>

Overarching theme: ‘social media: positives and negatives’
Key theme
<i>Subordinate theme</i>
Facebook were impossible to contact
<i>I tried to contact Facebook themselves but I got nothing at all back from them</i>
Not everyone likes Facebook
<i>Although some people knew about the page, they are not Facebook people and don't want to become Facebook people</i>
Even people who don’t like Facebook were keeping an eye on the page
<i>Even people who aren’t normally Facebook people were keeping an eye on TFWCH</i>

Table 34. Qualitative Thematic Analysis 2: Subordinate themes for overarching theme 'looking to the future'

Overarching theme: 'looking to the future'	
Key theme	Subordinate theme
Improvements are possible but the page did as good as it could at the time	<p><i>There was no plan before you created the page Mel so you did as well as you could in the situation. While better planning before launch is a good idea it's totally invalid given the circumstances</i></p> <p><i>While hindsight is helpful, and there are ways to improve the page, the page did well to evolve and improve as the disaster played out</i></p> <p><i>While I can see ways for the page to be improved, my suggestions are minor given the overall good things</i></p> <p><i>Everyone was doing to the best of their ability at the time</i></p> <p><i>No one could have known how the page was going to snowball</i></p> <p><i>There are obviously a lot more plans in place now that you have all this experience rather than just flying by the seat of your pants</i></p> <p><i>Some things were not ideal, but everyone is emotionally spent, so what can you do</i></p> <p><i>A response like this is not built from some template that you just insert in</i></p>
Suggestions for page improvement in the future	<p><i>The page could have been better if you got rid of posts once that problem had been solved, or somehow moved them to Completion Status or something</i></p> <p><i>The page could be better if there was a central database of what everyone is offering so others can just go straight to that</i></p>

	Overarching theme: 'looking to the future'
Key theme	
	<i>Subordinate theme</i>
	<i>The page could be better if you could post direct on the page without getting screened</i>
	<i>The page could have been better if it had had some instant links to things like charity sites, police notices etc. and if these links were really clear and easy to use</i>
	<i>Regular summaries would have been really handy</i>
	<i>The page could be better if it was two pages and one page was a group page. Or maybe even multiple pages.</i>
	<i>The page could have been better if you had created events for when large numbers of people were needed</i>
	<i>The page would have been better if the new website that was made was more user friendly</i>
	<i>The page could be better if there was some sort of search function</i>
	<i>The page could be better if the important posts were somehow separated, or if the info could be organised and compartmentalised, or if a text document, spreadsheet or database or something was set up so we could more easily keep track of the posts</i>
	<i>The page could be better if people were not forgetting to look at the Recent Posts by Others</i>
	<i>The page could have been better if it had more government contact</i>
	<i>The page could have been better if people followed up on their suggestions to give us reports back about how it was going and if they had had success and no longer needed help or donations etc.</i>
	<i>The page could have been better if it constantly updated when donations points were no longer collecting things. By the time we got out there they didn't want anything else</i>

	Overarching theme: 'looking to the future'
Key theme	
	<i>Subordinate theme</i>
	<i>Twitter has been good elsewhere. Maybe it could be used more here</i>
	<i>Having official recognition by the TFS and Tasmania Police would be good so that we know we aren't getting in the way of the law</i>
	<i>The page could be better if there were more pictures</i>
	<i>The page could be better if Facebook Pages actually emailed you with notifications like Personal Pages do</i>
	<i>The page could be better if there was more than one Administrator, if there was a team, so that things could be done faster, and so that it all doesn't fall on one Administrator, and so the Administrator could have got more sleep</i>
	<i>The page could be better if all questions and answers and information were on the one page rather than redirecting to phone numbers</i>
	<i>The page could be better if somehow we could make sure posts in comments with offers of help and things like that don't get lost</i>
	<i>The Administrator could have done with some more support. I hope she had enough support</i>
	<i>Next time it would be good to make sure that the connections with agencies are in place right from the start</i>
	<i>It is important to consider how the page might be run in the future. It is important to make sure you are not TOO organised ahead of time as this would affect the spontaneity of the whole thing</i>
	<i>In the future it would be great if a volunteer list of ready to go people could be ready to go when disaster struck</i>
	<i>An app would be a good</i>
	<i>As a possibility for the future a grassroots network could be created that key agencies feed into directly</i>
	<i>It is important that this continues to be the default page for future emergencies</i>

Overarching theme: 'looking to the future'	
Key theme	
	<i>Subordinate theme</i>
	<i>This should be a template for future disasters but only if Mel is paid for it, this kind of thing deserves funding</i>
	<i>This page could work in the future as a dormant thing that is ready to spring into action with custodians ready to go</i>
	<i>Teams are good but it is always so hard to get the right people so it doesn't all crumble</i>
	<i>The page should be cloned but only IF it does not get taken over by government or big business. The common touch is vital.</i>
	<i>It will be important to differentiate this page from others that link and sound similar</i>
	<i>It would be good to link to all agencies and become a part of the emergency response task force</i>
	<i>The page could have been better if it had had even more publicity</i>
	<i>While discussing some of the more contentious issues would have been good, I understand you needed to keep the overall tone of the page positive</i>
	<i>Verifying information would have been difficult for the Administrator, in a perfect world all comments would be verified before being let on the site</i>
	<i>The TFS page does not provide enough detail. This page could have posted more about what the actual fire was doing</i>
	<i>The page needed to be control donations, as things were getting donated after they were no longer needed. It could help in the future to have someone at the drop off points reporting back</i>
As the page evolved there were some changes made that were important	
	<i>The page was better when TFWCH posts were separated from other posts</i>

	Overarching theme: 'looking to the future'
Key theme	
	<i>Subordinate theme</i>
	<i>The page was better when TFWCH got information direct from the top of agencies etc.</i>
	<i>The page was better when the information became more accurate, when the information about what was needed became less sketchy, when the information became more pertinent as it evolved</i>
	<i>The page was better when the information wasn't quite so all over the place. Once it was a bit more organised</i>
	<i>By the time information started coming direct from the top of agencies etc., it was better</i>
	<i>The page was better when the volume of posts reduced</i>

